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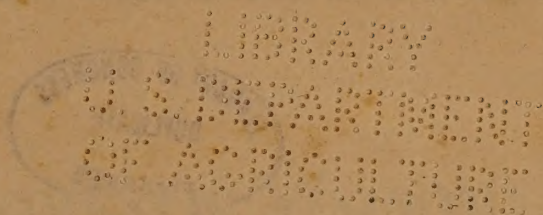
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THE
FARMER & GARDENER,

CONTAINING

ORIGINAL ESSAYS AND COMMUNICATIONS,

ON

AGRICULTURE, HORTICULTURE,

RURAL AND DOMESTIC ECONOMY, &c.

VOL. IV.



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*Pa 156. — Spring wheat 1 bush 2 1/8 to acre.
said to be too much — sowed Mar. 10th
yield 15 to 20 bu. acre
Rockbridge County, Va. 1837 —
Siberian best there*

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American Farmer Establishment.

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With the present number, we commence the 4th volume of the *Farmer and Gardener*, and cannot permit the occasion to pass by without returning to our patrons the homage of our unfeigned thanks. With a view of inducing the agricultural community to read, we have reduced our subscription price from \$5 to \$2 50 per year. In making this reduction, we have been prompted by motives which we trust will find favor abroad—we were solicitous to aid, to the extent of our means, in the dissemination of wholesome information amongst the husbandmen of our country, believing it essential, in the present aspect of affairs, to their success in business. To effect this object—an object near and dear to our hearts, we determined at once to bring the price of the paper to so low a rate, that it should offer an inducement to its extension—and with a view of carrying out our plan, we have taken off 50 per cent. of its former price, and in order to make up for this voluntary curtailment of our income, we respectfully appeal to our subscribers, in the hope, that each will feel himself called upon to obtain for us additional patronage. We, of course, lay no claim to any one's services in this way; but as the virtuous are always just, our reliance is, that, in the influence of that generous spirit of reciprocity, which ever pervades the minds of good men, we shall find every disposition to second our views and advance our interests. Already we have derived solid benefit from the exertions of many of our subscribers to increase the number of our patrons, and while we return thanks to those who have so disinterestedly essayed to serve us, we would respectfully invoke each and all, to follow their noble and public spirited example—and above all, to recollect, that, as one of the conditions of our

terms, is payment in advance, all remittances by mail, or private conveyances, will be received as so many eloquent testimonials of the approbation of our subscribers.

WORK FOR MAY.

ON THE FARM.

In by-gone days, the month that has just past was celebrated in song as being prolific of showers—of showers that fitfully descended amidst sunshine and clouds, giving a spring to vegetation and clothing the earth with its richest verdure—but alas! April is no longer that handmaid of the husbandman that she was wont to be,—so changed is her character, that those who witnessed the invigorating effects of her former seasons, would know her no longer by her influence on the growth of plants and flowers. Instead of having some twenty rains of greater or less magnitude, during the last month, we had but two, and one of these accompanied by one of the severest snows we recollect to have seen for a long time. Indeed, so completely changed has been the temperature of our seasons, that there were, during the past month, more snow, ice and frost than rains:—only on Tuesday and Wednesday mornings last, there were ice at our residence, the sixteenth of an inch thick, and on the same day at Marietta, Pa. the snow was several inches deep.

These changes of climate must necessarily bring about a new era in the calendar of planting—must produce correspondent changes in the time of committing various seeds to the bosom of the earth.

As we have before observed, the changed character of our seasons, as manifested in that of the month that has just closed upon us, has devolved upon us all, who get our livings out of the earth, additional responsibilities; for much of the labor which formerly had already been performed, is yet to be done; thus rendering the season, which was always short enough for most agricultural purposes, still more brief, and the necessary labors of the field the more onerous. But as our fathers of old, in battling for our liberties, increased in energy, in singleness of purpose, and in zeal,

in proportion to the obstacles and difficulties which surrounded them, so let us, with resolute and indomitable determination, *determine* to reach the goal of our hopes, and all will be well; for what men can do, is within the powers of achievement of the American husbandmen.

Then let us see what is to be done

ON THE FARM.

CORN.—As under present circumstances, this valuable grain will have to be the main reliance of all for bread, we must again call the attention of the agricultural community to the necessity of putting in every acre of ground that they can spare and to *cultivate well*. And here we would be permitted to premise, that with judicious culture, it is as profitable, if not more so, than any other of the grain crops, while if it be neglected, its *yield* serves as a *rebuke* to those, who, with the means of success in their hands, permitted the opportunity of securing it to pass by unimproved.

Much depends on the preparation of the ground, and equally as much in the care bestowed upon its culture. It matters not how it be planted, whether in wide or narrow rows, the soil must be kept clean and well stirred until the plants are laid by for the season. We have in our 46th number entered fully into the modes of culture and treated amply upon that branch of business, and respectfully refer our readers to the facts and calculations we have there arrayed. They are important, and should be read and studied by every one who desires to excel in the culture of corn. We think we have clearly demonstrated in that paper, that *large* products can only be secured by close planting—by the multiplication of plants upon a given quantity of ground; and we would here respectfully ask of our patrons, if it be not convenient for them to put in their respective entire crops in this way, to select an acre or two of good land, manure it well, and treat it as we have before directed in the paper to which we have alluded. They may each rest assured, that the experiment, if carried out in good faith, will more than repay them for all additional trouble and expense that it may give them.

IRISH POTATOES.—This valuable succulent should not be omitted to be planted plentifully,

for next to the breadstuffs proper, it affords more real nutriment for the sustenance of human life than any other vegetable that is grown; besides which, it is of all others the one the most universally palatable to man. Many farmers and planters merely raise a sufficiency for the purposes of their tables, and thereby commit a most fatal error; for there is no root which keeps better, if properly taken up, and put away either in a dry cellar, or buried in open ground; nor are there any which can be more advantageously substituted for grain in the feeding of stock. Deeming them thus highly important, we will say something of their culture. Upon this subject there is a great diversity of opinion; but as we have never conceived the absurd notion of playing the part of an arbiter in matters of agricultural dispute, we shall content ourselves to lay down such simple modes of culture as, in our opinion, are calculated to ensure reasonably good crops.

The soil best adapted to their culture is unquestionably a deep rich loam, in which are mingled generous portions of vegetable pabulum, or matter easily convertible into it; but however intrinsically rich the soil may be, potatoes should have a good supply of alimentary manures to draw upon during the growth of the plants; for as they are heavy feeders it is necessary to provide them with plenty of food.

It is thought by many well thinking farmers, that they yield most when planted on newly turned up *sod*. Whenever they are raised thereon, the *sod* should be ploughed with great care, so as that all the *sods* be turned under—the field should be harrowed in the same direction as it is ploughed, so as not to disturb the *sod* in its inverted position. Care too, must be taken in the covering of the sets, so that no clods or unbroken earth remain upon them to obstruct their passage through the soil. The best manure for potatoes, is long unrotted stable dung: if, however, this cannot be obtained, the litter of the cow-yard, leaves and mould from the woods, the twigs of pine trees, sea-weed, or weeds of any kind, will each and all prove valuable substitutes. The *distance of planting* may be from 27 inches to three feet, whether the plan of culture be in rows or hills: if in *rows*, the *sets* should be placed from 8 to 10 inches apart: if in *hills*, 3 sets in each. The rows or hills, should run *north* and *south*. And we would here remark, that whether the plan of planting be either one or the other, each should present a *flat surface*; the manner pursued by some, of bringing their potatoe rows and hills to a *point*, is radically defective, and should be a-

bandoned by all. As soon as the first indication of the appearance of the plants, which are in rows, occurs, a harrow should be drawn across the rows. By this process the earth becomes opened and freely admits the plants to pierce the earth, while the partial cultivation they thus receive, serves the double purpose of destroying grass and weeds, and of giving to them a start and impetus to their growth at the onset, a most important consideration. When the plants are up, they should be slightly sprinkled with plaster. As soon as they have reached a few inches in height, the plough should be passed through the rows on either side, throwing the furrow from them as the plough goes one way, and returning it again as it comes back. This pulverises the soil, and serves to render it in the best possible condition to benefit the growing plants. The subsequent ploughings, or hoeings, must be regulated by the condition of the ground; the great object being to keep it clean, the soil mellow and loose. In most cases, three ploughings or hoeings, will be sufficient; but of this the cultivator must judge for himself, as much depends upon the condition of the soil, and its predisposition to generate grass and weeds.

The *preserving* of potatoes is an easy matter, if care be observed in taking them up before they are injured by the frost. As soon as they are dug, while the earth attaching to them is moist, they should either be removed to the cellar, which should be a dry one, or buried in the earth in small lots, on a dry and rather elevated situation. Over each pile that is buried, there should be a slight covering of straw, and about 9 inches of earth, observing to make the heap of a conical form, so as to drain off the water freely. Around each heap there should be a ditch constructed so as to carry off the water.

CARROTS.—If you have not already put in your carrots, do so with all possible expedition, as the sooner they are got in, the better chance you will have of getting a large crop. Of this root, we feel much solicitude that you should raise a large quantity, and we are sure your good lady will remember us in her gratitude next winter, when she comes to reap the benefit in butter and milk, should you permit her to have them fed to her dairy cows—for there is no greater truth, than that they are beyond all comparison the best feed for milch cows that was ever given to this generous animal.

Let your ground, which should be a sandy loam, be manured with about 20 double horse or ox cart loads of well rotted manure, or 150 bushels of ashes to the acre, and ploughed as deep as

your team can pierce the earth. Two ploughings is best. Harrow thoroughly, so as to pulverise the earth finely, and sow while it is moist. In drills 15 inches apart is the best distance, if you plant in drills; the plants in the drills should be thinned out so as to stand about 3 inches apart. Should you prefer broadcast you may safely sow them in that way; and when the plants come up, let a careful hand go through them, thinning them out so as to stand about 4 inches asunder. In this operation, it will be found necessary to use the hand as well as the hoe, as it is impossible to perform it with exactness without using the former, many of the plants coming up so closely as to defy being properly thinned with the hoe. Your hogs will eat the plants thus drawn out with avidity and greatly profit by them.

Two or three workings will be necessary to keep down weeds and grass, and to give the plants a chance of growing freely. Bear in mind *that it is necessary to keep them clean, and the ground well stirred.*

Preparing the seed—Rub the seed through your hands, so as to deprive them of the beard, and give to their form more roundness; soak them in warm water a day or two, then drain off the water and mix them with plaster or dry ashes. By submitting them to this process you will make them germinate much quicker, and you will be enabled to sow them with much more exactness, and consequently with less loss of seed.

Quantity of seed—If sown broadcast 4½ lbs. of seed will be necessary: if in drills 3½ lb. will be sufficient. These quantities are prescribed upon the supposition that the seed is fresh and good.

Depth of sowing—Make your drills about an inch deep: if sown broadcast, they should be lightly harrowed in—perhaps it would be best to brush them in. They should be rolled; if sown broadcast, and if in drills, the back of the rake used for covering should be drawn over them.

Keeping them through the winter—Bury them in moist sand, or put them away in your cellar with a slight covering of straw and sand.

You may with great advantage give them two or three times a week to your horses, and thereby save your grain feed. A peck at a meal, cut up fine, is enough. Besides being a highly nutritious food, they serve to keep the bowels open, and the blood pure and cool. We have no doubt by alternating your horses' feed between carrots and grain, that you will greatly contribute to their general health, besides enabling you to sell more of the latter, and thus add to your income.

An acre of ground that will bring you fifty

bushels of corn, with the same labor and attention, will produce seven hundred bushels of carrots, and surely, we need not add, that the latter will go much farther in feeding out to your stock.

PARSNIPS.—The same culture, as advised with respect to carrots, should be observed with this root, with this exception, that the drills for *parsnips* should be 18 inches apart, and the plants stand 4 inches asunder.

Preparing the seed—Soak them as advised for the carrots and roll them in plaster or dry ashes.

Quantity of seed—If sown broadcast 6 lb. of seed to the acre will be requisite: if in drills 4 lbs. will be sufficient.

Preserving them through the winter—These being a hardy root will stand out where they are raised all winter; but as it is always neatest to put away whatever is grown, it will be best to take them up. Should you do so, you may keep them as you would potatoes.

For feed for milch cows, cattle generally, and for hogs, they are only equalled by carrots, being highly nutritious, healthful, and eminently conducive to the secretion of milk.

MANGEL WURTZEL AND OTHER BEETS—As the time has arrived for putting in these roots, let us advise you to try either one or both of them. The first variety possesses in an eminent degree the power of inducing cattle or hogs fed upon them to take on fat, and may with decided good effect be fed occasionally to your horses. The product of either in good loamy ground, under good culture, is immense. In England, 50 tons, it is stated, have been raised on an acre; but if one-third that quantity could be raised in this country, it would prove a most profitable crop. They may be either raised broadcast or in drills. If the former, they should be thinned out so as to stand about 15 inches apart: if the latter way, the drills should be about from 24 to 30 inches wide so as to admit of ploughing, and the plants about 12 or 15 inches asunder.

The soil should as in the case of carrots and parsnips be a good loam,* to be well manured and deeply ploughed. The after culture consists in keeping the ground clean from weeds, and well stirred until the plants are sufficiently large to shade the ground, when they will take care of themselves.

If the *Mangel Wurtzel* be sown in April, or early in May, their leaves will be sufficiently grown to pull off in July to be fed to cattle and hogs. In pulling the leaves, care must be taken to take off

*They will however grow on any rich soil well pulverized.

only the under ones, leaving those at the top untouched. The best way to strip the leaves is to sieze the under leaves with both hands at once, pressing the thumb against the stem, taking them off with one press downwards. As the lower leaves are taken off, new ones come out, so that you may strip the lower part of the plant two or three times in a season, thus securing for your stock plentiful supplies of excellent green food.

Quantity of seed—If sown in drills 5lb. will be about the proper quantity: if broadcast, less than 5lbs. should not be seeded on an acre.

Preparation of the seed—Soak them in hot water 24 hours, roll in plaster, or ashes, and sow.

Culture—After every stripping of leaves, the ground should be stirred: this imparts new life to the plants, and will make them throw out fresh supplies of leaves immediately.

Harvesting and Keeping—Just before the frosts set in, take up the roots and let them remain until a portion of the watery particles with which they are filled are evaporated, then either bury them as you would potatoes, or stow them away in your cellar.

The leaves in winter, if cut up finely and mixed with cut hay, will be readily eaten by your horses, while the roots sliced in winter affords a most excellent, nutritious, and healthful, feed for your horses, cattle or hogs; for the two former they should be mixed either with cut hay or straw.

For milch cows they are of too fattening a nature to be generally fed, conducing more to the increase of flesh than to the secreting of milk; but for them, if mixed with cut clover hay, they will be found eminently serviceable.

With the uses and virtues of the common beet, every farmer is so well acquainted, that we do not deem it necessary to say aught in their favor; for all know them to be just as good for the table as they are for stock of all kinds.

PUMPKINS—As every farmer knows their value and mode of culture, we will content ourself with reminding them, that *now* is the time to plant them, and by advising them to distribute their seed freely through their corn-fields.

BUCKWHEAT—Any time from the beginning of this month till the beginning of July you may sow your buckwheat and be sure of a saving crop.

Quantity of seed to the acre—With respect to the quantity of seed there is great difference of opinion, while some sow but a peck, others seed from three to four pecks; perhaps three pecks is about the proper allowance.

While we are upon this part of our month's

work let us remind you that you never gave better hay to your milch cows, than is buckwheat straw well cured; and, therefore, we would enjoin it upon you to preserve it with as much care as you would your best timothy. We speak from experience, and, therefore, are the more anxious that you take care of it.

MILLET—This grain may be sown any time between the middle of this month and the middle of July, and will make you a heavy crop of hay in six weeks, say from 2 to 4 tons to the acre. If you design it for hay alone, as soon as the head is formed, you should cut it; cure it in cocks, and you will have a hay more nutritious than any other. It cures easily, keeps well, and is eaten with avidity by either horses or cattle.

If you want to obtain the grain, let it remain a few days longer until the head turns yellow; then cut; thresh out the seed, when dried, and stack or stow away your hay. When the seed is permitted to ripen, the hay, of course, is harsher; but is still a highly nutritious provender for stock of all kinds.

If you desire hay only, you may sow from three pecks to a bushel of the seed: if for both grain and hay, from 2 to 3 pecks will be sufficient.

FIELD PEAS AND BEANS—Do not omit to plant plenty of both; if you have no ground that you can specially appropriate for such purpose, plant them through your corn-fields: they will not materially abstract from the product of your corn, while they will greatly tend to increase the solid comforts of your household, and add no little to your profits.

If you have a piece of ground that you can spare for their culture, you can either sow them broadcast, or in drills.

Should you desire early feed for soiling either your cattle or hogs, the field pea sown broadcast, and cut as you would clover, will be found to be a highly acceptable treat to them.

CABBAGES—Do you contemplate putting in a few acres of cabbages to carry your cattle and hogs through the winter? If you do, procure seed of any of the large and hardy kinds; sow them in a plant bed, and transplant when the plants are of proper size. You may with care raise as much green food on an acre in cabbages as of any thing else, and I am sure you cannot provide any thing that will be more acceptable in winter.

SWEET POTATOES—Now is the time, if you have not already done so, to plant this excellent and productive root.

PALMA CHRISTI AND SUN-FLOWER—The seeds of these are both in great request, and bring good

prices, therefore if you wish to add to the articles already cultivated by you, lose no time in planting them. You may raise running beans around each without injury, and thus "kill two birds with one stone," besides saving yourself the labor and expense of polling your beans.

WATER & MUSK-MELONS, AND CANTALEUPES. The sooner this month you get in these luscious fruits the better. Sandy soil as you know suits them best; but you must bear in mind that if you wish fine fruit, you must give to each hill a liberal allowance of well rotted manure, or ashes, and as your plants come up, sprinkle over them, and the hills, a little of the *flour of sulphur*, and in a few days give to each hill about a table spoonful of *spent ashes* and *plaster of paris*, mixed in equal portions. The first will prove a preventive from the bugs, as also a stimulant, in its power to attract moisture from the atmosphere, while the last will act in the latter capacity, secure to your plants a rapid growth, and soon place them beyond the influence of the insect tribe.

If you have no flower of sulphur, make a decoction of the leaves of *Elder*, and water your melon plants, or strew the green leaves of *Elder* over them. If you have no elder, the leaves of the black walnut will answer equally well; so also will a decoction of the leaves of tobacco, or soot, or *soap-suds*, sprinkled over the plants, act in the double character of manure and an expellant of insects.

And here we would remark, that by the use of either of the above articles, you may save your *pumpkins, squashes, cucumbers, and cabbage plants*. For the latter, a decoction of sulphur and soot, is particularly efficacious.

CLOVER FIELDS.—If you have not already done so, sow, in the proportion of a bushel to the acre, of plaster of paris, over your clover fields; the benefit will be four-fold.

RUTA BAGA.—Do you contemplate sowing any of this valuable root? If you do, flush up the ground you intend for it, *deeply*, say 7 or 8 inches deep; let it lay and mellow; plough it again on the first of June, and on or about the 15th of that month, give your ground a third and last ploughing, first manuring it with about 20 cart loads of rotted manure, then harrow twice; lay off your drills, and sow or drill in your seed as thinly as you can, making your rows about 27 inches apart.

If you have no rotted manure, 150 bushels of spent ashes will prove an excellent substitute. If you use the latter, do not plough; but harrow it in. The plants should stand about 10 inches or a foot apart in the drills. You will of course thin them out to that distance. When the plants are

a few inches high, run the plough through them, turning the furrow from them. Clean out the weeds with the hand and hoe, at the same time thinning the plants by hand as directed above. They must subsequently, as requisite, be cleaned with the cultivator or hoe.

Another method of growing this root, and which is preferred by many, is this: after the ground is harrowed, furrows are run through it 27 inches apart; into these the dung or manure is spread, then the plough goes on either side of these furrows, turning up on each side another furrow, so as to form a ridge, which is smoothed down, and the seed drilled or dibbled in upon the top; thus concentrating all the manure in one drill, and securing to the plant a plentiful supply of nourishment.

From 700 to 1,500 bushels of *Ruta бага* have been thus raised on an acre.

It may be well here to observe, that dry loamy, or sandy loam, suits this root best, and that, in wet grounds, it will not grow well.

FENCES.—Examine all your fences, and have them thoroughly repaired, so as to prevent the incursions of beasts of all descriptions.

CELLARS.—Have your cellars cleaned, taking care to remove all vegetable offal of every description: when thus cleaned, purify the walls by whitewashing, and the floor by sprinkling lime over it. In making your whitewash, slake the lime in your cellar, so that it may receive the purifying effect of the gases which fly off.

WHITE-WASHING.—Have your barns, stables, and poultry houses, inside and out, well whitewashed, as also your garden and yard fences, as well as those on either side the avenue leading to your dwelling; not forgetting, while your whitewasher has the brush in hand, to let him apply it freely to every part of your dwelling that is not papered or painted. Besides adding much to the appearance of a homestead, there is nothing more promotive of health than this method of cleansing.

Having freely attended to the business of the farm, as a matter of sheer justice, we must be permitted to say something about the kitchen and flower gardens, as it would be uncourteous not to devote a portion of our attention to the lady, who does so much honor, and contributes so much of solid happiness and comfort to your establishment, and to whose economy and prudence, you are so largely indebted for all that lends to life its charms, and makes your domestic fireside the seat of happiness, and the abode of bliss.

IN THE KITCHEN GARDEN.

Water Melons, Cantaleupes, Musk-melons, Cucumbers, and Squashes.—The sooner you get the

above fruit and vegetables in this month the better. If possible, you should not delay planting them beyond the 15th of the month.

Mode of preparing the ground.—Select a piece of rich, sandy loam, or a deep mellow loam, in which sand forms a constituent part, well exposed to the south, manure it liberally, and dig it up deep; at the distance of every six feet, dig a hole 12 inches deep and 18 inches wide; fill it up with well rotted manure; over this, draw about 4 inches in depth of the ground you took out of the hole just dug, mix it well with the dung or manure, after this put on the remainder of the earth, forming therewith a flat hill, about 12 inches broad at top. When your hills are formed, plant 6 or 8 seed over them about 2 inches apart; cover them about an inch deep. When your plants come up, sprinkle over them a small portion of the flour of sulphur, and when they have attained the height of an inch or two, and have got their rough leaves, thin them out so as to leave from 2 to 3 of the strongest and most vigorous plants. As your vines need it, draw earth around them as high up as the seed leaves. You must now top your plants at the end of the first runner, which you will know by its resemblance to a small bud, being the advancing top of the plant. Take this off close, which may be done either with the point of a penknife, a small pair of scissors, or may be pinched off with the finger and thumb. Whichever way you do it, you must be careful not to go so close as to wound the joint from which it proceeds.

You must now watch your hills, and as the ground either gets weedy or baked they must be cleaned and stirred, a great portion of your success depending on keeping the earth free from weeds and open, so as to receive every advantage from rain, dew, and atmosphere.

Cauliflowers, Brocoli and Cabbages.—Your early plants of the two former must now be planted out, as also those of the latter. The seed of the latter must be sown early this month, treating the plants when they first come up to a gentle sprinkling of flour of sulphur, or a decoction of soot and sulphur, to answer the two-fold purpose of preventing destruction by insects, and of giving the plants themselves a vigorous start.

There is one thing that we would wish especially to impress upon your minds: it is this, that by watering your plants twice a week with *soap suds*, you will ensure their growth in the most vigorous way imaginable; for of all liquid manures, we know of none so pre-eminently adapted to give an impetus to vegetation.

Beans and Peas.—Now is the time to put in your beans and peas of all varieties; and in order to insure a continuous supply, it is best to plant portions of them at intervals of some days apart: by this means you can always have them young and tender for your table.

Lettuce.—Put in your lettuce as early this month as possible, so that you may have fine heads to succeed that which you planted earlier.

Radishes.—If you desire this vegetable in perfection choose a fine piece of sandy loam, manure it well, dig deeply, rake your ground fine, and put in your seed while the soil is moist—by this means, you will push their growth on rapidly, a thing most desirable where you wish to produce a crisp and tender root.

Carrots, Parsnips and Beets—No time should be lost in getting these roots in; for the best method of cultivation, we refer you to our directions under the head of work on the farm.

Celery—If you were so provident as to sow this seed so as to have plants early, now is the time to set them out. If you have not done so, sow your seed as soon as possible, and you will have a supply for winter use.

Asparagus—Keep your beds free from weeds, and as soon as the roots which come up appear to get small, mind that that is the time to stop cutting; for if you continue after nature gives you this sign, your next year's crop will be greatly diminished both in quantity and quality. Many a fine bed has been spoiled in this way.

Onions—Be careful to keep your onion beds clean and the earth well stirred; for much will depend upon it whether you have them full grown or stunted.

Tomatoes and Egg Plants—The seeds of these excellent vegetables, if not sown before, may now be put in.

Red Peppers, Okra and Nasturtium—It is time that each of these be sown, the seeds will vegetate freely, and the plants if attended to will grow vigorously.

Pot-herbs of all kinds may now be sown.

In concluding this branch of our remarks, we would observe, that if you wish your garden to be worthy of your ambition and pride, you must give to it a vigilant supervision, and see that your gardener and hands delay nothing that should be done one day until the next—time, which is always precious, is peculiarly so in the management of a garden. Your beds should at all times be kept clean and well stirred; weeds and grass of all kinds should find no resting place in it, and whenever a drought occurs, the watering pot should be freely used.

IN THE FLOWER GARDEN.

Dahlias—Plant out your Dahlia roots as soon as you possibly can in the beginning of this month, and here let us enjoin it upon you to give them plenty of well rotted manure—place your sticks when you plant the roots, and do not in the course of the season spare water and soap-suds. They are lovely flowers, and are worthy of all your attention.

Hyacinths and Tulips—Protect your beds of each of these flowers, by boards or matting.

Ranunculuses and flowering bulbs should all be watered, and shaded from the mid-day sun, if you desire to prolong their bloom.

Carnations—As your pot Carnations advance, give them all proper care, and see that they do not suffer for water, and as the flower stems advance attach neat sticks to them for their support.

Pinks—These too will require similar treatment.

Annual Flowers—Most kinds of annual flowers may now be sown, and as it is desirable to force them into a condition for early planting, be sure to sow your seeds on rich beds, and keep them well watered.

All flowers which are propagated by slips should undergo that operation during this month.

Roll your gravel walks, and mow your grass ones. If your gravel walks become grassy or weedy, recollect that by watering them with brine you have a sure means of their destruction in your hands.

SHORT HORNED CATTLE.

We learn, with much satisfaction, that a distinguished American agriculturist now in Europe, has prevailed upon Mr. J. Whitaker of Yorkshire, to send a part of his superior herd of *Improved Durham Short Horns*, to this country, for sale, by auction, and that they may be expected to arrive early this summer; we also understand the sale will take place in the neighborhood of Philadelphia.

It may not be improper to state, that Mr. Whitaker is the most celebrated and successful breeder of "Durham Short Horns" in England, and it is principally from his stock that "Colonel Powel" and the "Ohio Importing Company," have made their best selections for some years past, and they are universally acknowledged to be the finest cattle ever brought to this country. A rare chance, will, therefore, soon be offered for obtaining choice and pure animals, without the risk or expense of a sea voyage.

[From the Germantown Telegraph.]

RAISING OF THE SILKWORM, AND THE CULTIVATION OF SILK.

NO. I.

Mr. Freas.—As every thing relating to the growing and breeding that curious insect, the Silkworm, in the United States, and particularly in the State of Pennsylvania, is becoming interesting to the community, a short history of the worms that produce white silk, which were raised by the subscriber, in Germantown, the last season, from one ounce of eggs, will, it is presumed, be so to your subscribers.

In the month of May last, I purchased of Mr. Terhoeven, one ounce of eggs. About the 16th of the same month, I put them in a paste-board box about 20 inches square, and spread the eggs evenly over the bottom of the box, and placed it in a third story room, where the temperature was about 70 Fahrenheit—the sun not being permitted to shine on them. On the 21st and 22d, some thousands came out, which were kept by themselves; and on the 23d, the remainder, being seven days from the time they were placed on the paper. Should it be rainy and cold, it will take longer for the eggs to hatch. The time of coming out is between seven and nine o'clock, A. M.—very few make their appearance after that time, till the next day at the same hours. When they begin to hatch, lay a thin piece of paper over the eggs, punctured full of small holes with a pin, and put the leaves on the top: the worms will come up through these holes and attach themselves to the leaves, when they can be removed to another piece of paper.

They are of a dark color, about one-fourth of an inch in length, very active and extremely vor-

acious. Care must now be taken in removing them from the old leaves; otherwise a great number of them will be lost; as their habits are to secrete themselves as much from the light as possible, particularly in their first and second stages. When fresh leaves are put on, they will immediately leave the old ones and take hold of the new with avidity. Remove the new leaves and carefully examine the old ones; as many remain partially folded up in the old leaves. The first age many thousands may be kept together. After the first moulting, they require about double the space. Those that came out on the 21st, went into their moult state on the 29th, and continued about two days dormant; during all this time they should not be disturbed, and very few leaves given them. On the 1st June, they were roused, having moulted—being eight days from the eggs. Be particular in keeping the worms of the same age together. The space for the first age, for one ounce of eggs, should be about seven or eight square feet: but the more room they have the better they eat, and their breathing and perspiration are more free. The mutable and irregular climate of Pennsylvania, will have a great effect on the nerves and fibres of those worms hatched from eggs newly imported from the warm and steady climates of Italy and France: some time, therefore, will be necessary before their fibres will acquire a facility of contracting and expanding, with sufficient quickness to answer the sudden changes of the weather.

I shall treat on the second stage of the worm, in my next number. A few ounces of eggs, long since acclimated to this climate, producing white cocoons 212 to the pound, can be had on immediate application to the subscriber.

JEDEDIAH STRONG,

Germantown;

Or of HENRY B. HIRST, Arcade, Philadelphia.

SILK CULTURE.

We have seen a beautiful sample of sewing silk, which, while it proves the success that may attend the Silk culture in this state, does great credit to the taste and skill of the young lady, *Miss Clarissa Moulton*, of Centre-Harbor, who manufactured it.

She superintended the production of her mulberry trees from the seed; attended the silkworms, and with no other machinery than a common reel and spinning-wheel, reeled, spun and dyed the silk.

The silk is of fine, smooth thread, and in the sample before us, five rich and brilliant colors.—The effort of this young lady deserves much praise, and are worthy of imitation.

We are informed that she has mulberry trees for sale, which we mention for the benefit of those persons in the vicinity who may wish for a supply.—*Portsmouth Journal*.

SILK BUSINESS.

We are glad to find that the silk business is beginning to attract the attention of persons in this neighborhood, who are competent to manage it with skill and success, and to bring information and intelligence to aid enterprise in the promotion of their undertakings. How many farmers, by turning some attention to this subject, reap the

profits hereafter, and create employment, which might be rewarded with ample gain, for young persons and others whose time is not now employed at all, or for seasons, when this kind of labor might be attended to with advantage while no other could. When it is considered how profitable it has proven to those who have engaged in it, and that there is no art or mystery in the process, it is a wonder that more persons do not enter upon the cultivation of the mulberry tree, to a small extent at least.—*Fredericktown Herald*.

TAMING HORSES.

The mystery of rendering horses of the most unruly character perfectly obedient and docile, seems to be satisfactorily unfolded in the annexed communication, which we extract from the N. Y. SPIRIT OF THE TIMES. For many years this curious art has been deemed by the world something like a supernatural gift, with which but few men, and those "far between," were endowed. According to Mr. Lewis' account of the matter, any person possessing a quick eye, ready hand, active heel, and a certain portion of animal courage, by following the simple directions of Mr. Jonathan Smith, can learn to break the most unruly horses that ever stood upon four legs:

Llangollen, Ky. Feb. 19, 1837.

DEAR SIR—It was on the 26th of May, 1823, at Orange Court-House, in the Old Dominion, (God bless her!) where I then lived, that I first saw the late JONATHAN SMITH. It was Court day, and he, surrounded by a crowd of gentlemen, began thus:—"Every groom and trainer, gentlemen, has his own way of bridling, and breaking, and managing horses. I am a teacher of the art; I can tame the most ungovernable horse on this green in one hour. And if any of you want to know how, I will teach you the theory, and show the practice, on this condition: If I fail, you shall pay me nothing; if I succeed, and satisfy you that you can do it as well as I, you and each of you who are taught shall pay me \$10. I will make the horse follow me without bridle, halter, or saddle, through this crowd; stand quietly while I crack this whip repeatedly over his back; make him give me any foot at command, and lie down if you wish it."

"Agreed, agreed!" cried half a dozen voices, of which mine was one. "Bring up Madison's mare, and if he can do half what he says with her, he must deal with the Devil." "No, gentlemen," said Smith, "there is no devilishment in it, but plain common sense, as you will see. Take the mare into that house out yonder," (it was a log house, about 20 feet square) "all horses may be managed in the same way." The mare was a wild, skittish young thing, high tempered withal, disposed to kick and bite, and would not let a stranger touch her. "Come, gentlemen," said Smith, "let us go to the stable." As he went along, he examined carefully a whip which he carried, formed like a wagoner's, but lighter in the handle and longer in the thong and lash. When we got to the door, Smith said no man but himself must enter. "Look through the cracks, and see what I do, and how I do it. Shut the door after me, and fasten it." In he went suddenly and very boldly, and before the mare could survey him, he was giving her the lash on her hind legs and thighs, with quick, sharp strokes. Around she went, kicking, jumping, backing out

and seeming as if she would break through the side of the house, keeping at the greatest possible distance from him. No rest, no breathing time was given; the sweat began to flow, and the mare slower in her movements, and occasionally to turn so as to screen her hind legs from the lash. When she turned her head towards him, and approached nearest, he stopped the whip, stretched out his hand towards her and said, "Come along." But she was off again instantly, and again the lash was applied. Presently she stopped, turned, looked at him, and inclined slightly towards him. He reached out his hand, stopped whipping, and touched her neck, saying again, "Come along." But there was no come along in her; there she stood suddenly. Away he leaped, and plied the lash and repeated "Come along." She soon turned, came towards him, and stopped. He was watching her, and the moment she began to advance, he did also, so that now he was near her, he patted her, stopped whipping, and as he moved away said, "come along." She began to move with him; but as if panic struck, a moment afterwards darted off. The lash was poured into her. She stopped, trembled, and dinged. "You'll see now," said Smith to us, "they generally do this when giving up." She approached; he patted her neck, stopped whipping, and said, "come along," moving slowly from her. She now obeyed, following him several times around the room. He patted her neck, and, as she was following him, he suddenly darted away and began with the whip, crying "come along." Instantly she was at his side, and the whip ceased to flash thro' the air, and he was patting her neck as she followed him around. Whenever she lagged, he was away, and the whip applied. Never after that would she remain two feet from him. "You see, gentlemen," said he, "the principle.—The whip never touches her to hurt when near me; nothing near me, or that I bring to her, is to hurt her so much as her fear of me, or any thing in contact with me." He then took off his glove, thrust his fist into his armpit and then rubbed it on and in her nostrils. After a few more times around the room, the mare following close to him, he said "open the door." The door was opened, and the mare followed close to him off to the crowd, and through it, and back again to the stable. He came out, closed the door, and said, "This, gentlemen, is always the first lesson, and never has to be repeated.—After a horse follows in the stable, it is but to make him do it in a small lot, where he cannot escape you. It has taken about thirty minutes. On the whole, it is humane, for it prevents all future contention. On entering her stable hereafter, she should be reminded by a single touch of the whip, and 'come along.' She will now follow the smallest boy, who will go in alone, give her the hint with the whip, and say, 'come along.' for a treaty has been formed with her to this effect, that when near you, she is never to be struck; but if at a distance and disobedient she suffers not after the fault, but during its commission. By this treatment her whole nature will be changed, and she may be taught, by the rational application of the principle, to do any thing that a horse can do. I will now show you that she will let me handle her feet, &c. so soon as I teach her what I want her to do." He went in and closed the door. She came up to him; he

patted her shoulder, then her arm, and carried his hand down the fore leg; she drew back and trembled. In an instant he was away from her, and the lash applied with "come along." Up she came, and he began again; she now stood fast, while he ran his hand over the leg, patting and soothing her. "She is now satisfied, you see, that she is not to be hurt when I touch her." He then went from leg to leg, till she stood perfectly quiet while he handled them. He then slightly tapped the inside of the foreleg, and said, "foot, foot." She raised it on the toe; he took hold of it gently, but firmly, raised it from the ground, and patted her, then stopped a few moments, and repeated it till when he tapped it she raised the foot off the ground for him. This he did repeatedly to every foot. "She now understands," said he, "that when I slightly tap her leg, and say 'foot,' I want her to give it to me, and she will do it, for if she does not, she will know the consequence. I will be off yonder, and the lash will take my place; I'm the most agreeable of the two. Horses taught this will never kick you; they are not only afraid, but from the association of ideas, take pleasure in your touch; it is the sign of peace. I will now put her confidence in me to the severest test." He raised the whip, laid it on her back, rubbed her with it; she trembled like a leaf till she stood nearer to him, as if for protection. He patted her; shook the whip over her, then increased its motion parallel to her back till it whizzed in the air, without ever touching her; louder and louder it sounded, till he began to crack it over her; once only did she retire, and back again instantly, for the moment she was off she felt the lash. After this he suddenly receded, raised the whip, and said, "come along." Up she came; then he cracked it over her very often, and she never moved from him.

"You see now, gentlemen, that the cracking the whip is also a sign of peace. She will come to it if you do not deceive her. My horse comes to it if he sees me, although a quarter of a mile off. Suppose your horse is afraid of an umbrella, or any thing else: take it into the stable, make him follow you with it on your arm; then touch him, then hold it over his head, then on his back, and then take him into a lot so small that he cannot escape you, and make him follow there, in like manner. He will soon cease to fear any thing when you thus prove to him that it will not hurt him; or if he is afraid, the great fear of distance and the lash will cast out the least fear of any thing in contact with you. Break your colts and fillies in accordance with these principles, applied by common sense, and they will play no tricks. Give your colt a first lesson; at the next, make him come up, lay the bridle on his head; when used to it, put it on, make him follow with the bridle on, without holding it, then lead him. Handle his legs, and feel as you have seen done to day. Teach him also to bear the crack of the whip near him, and over his back. These several teachings should occupy fifteen or twenty minutes, twice a day, for three or four days, then you may bring your blanket and circingle to him; go on as with the umbrella. When he is used to them, girth the blanket on; make him follow with it on; do this several times; after that, bring in your saddle, use him to it in the same manner. Put it on, and make him follow; after he is used

to it, lay over it a long narrow bag, with thirty pounds in each end, and let him follow with these on in the stable, and in the lot, with the bridle drawn as tight as when in the hands of a rider. Repeat this several times, and you may put up your boy in the stable; still let him follow you; then in the lot, several times. After a day or two you may increase your distance from him, towards the centre of the circle in which he walks. He will soon walk around the lot, obeying the bridle of the boy. You may now bring in another gentle horse, with a rider on, to walk with him, put *before* him at first. After a few walks thus in the lot, you may take them out, and with ordinary care, your colt is broken and gentle, without having injured himself or his rider. To teach him to lie down is quite easy *after the foot lesson*. Take a fore foot from the ground, hold it firmly, tap the other fore leg, and ask for it. He will necessarily come on his knees. Perhaps he will bounce up, alarmed at his new position. But you must have patience to teach a horse what you want him to do. Begin again; bring him in the same manner as at first on his knees, till he will remain quiet in that attitude, permitting you to walk round him without attempting to rise. Do this till he is used to it; then, when he is on his knees, go to a hind foot, and make him give that to you. When in that position, ask for the other hind foot; and down he comes on his side. Perhaps (if he is a timid animal) he will be alarmed at his new position, and rise up instantly; but take care to pat him as he goes down, and while he is on the ground; but as he rises, and is firmly on his feet, you must *retire*, and give him a slight admonition with the lash, that he is doing wrong to get up so soon. Go again and again through the same routine, he will soon understand what you want him to do.—And a horse taught thus, will do for you any thing that he can do when he understands you; and, gentlemen, he is not slow of understanding. The horse is naturally a very observing, sagacious, and sensible animal, docile and obedient, when once thoroughly convinced of the superior powers of man. And his intellectual powers, if I may say so without offence, are like those of man, much improved by proper exercise or education, with this remarkable difference:

'A man convinced against his will,
Is of the same opinion still.'

Not so with the horse. He never is of the same opinion after *argumentum ad equum* has once convinced him. The lesson of punishment at a distance from you, and teaching that near you is the place of safety and peace, with the consequent following you in the stable and out of it, is the first step always, and the key of the whole system. This first lesson must be more effectual, by perseverance and courage. I say *courage*, for some horses fight bravely in the first lesson; never afterwards, if subdued. If they merely kick and back towards you, the size of the room enables you, by keeping your eye constantly on them, and sideling round, to avoid their heels as you apply the lash. The horse will soon be tired of presenting his hind legs to you. But if the horse be a strong, high-spirited stallion, of some age, who, badly managed by a timid groom, has had his own way, when he turns his head to-

wards you then comes the tug of war. In such cases, gentlemen, I make myself a little ugly and outlandish in my appearance before I enter his presence chamber; and I do enter in a very bold, dashing style, (for horses are very subject to *panic* from sudden unusual appearances.) Before he recovers his self-possession, and can wonder at my audacious impudence, I fall aboard of him like five and forty wild cats, and before he is sufficiently self-possessed to front you, he is inspired with some considerable respect for his new customer's courage and prowess.—But after a while, he begins to think the joke is carrying too far. He turns and gives you a look, which plainly says, 'Who the devil are you?' I am sorry to make the noble horse swear on even so provoking an occasion; but I assure you he is not so much addicted to it as jackasses, and some other inferior animals, and he may at least plead the excuse of—'evil communications corrupt good manners,' for this bad habit. Now he surveys you, notwithstanding the sharp lash incessantly applied to the hind legs, fixes his gaze on you, lays his ears close to his head, draws back his lips, disclosing his teeth, opens his mouth, raises his fore feet, and dashes right at you.—Woe to the timid braggart, who, with wandering eye or daunted breast, is not ready with hand and heart, and heels, and eyes for this crisis. Perhaps his time is come!

'Poor Johnny Raw, what madness, could impel
So run a flat to face so prime a swell.'

Let none such presume to exercise the art of *mastering* even, much less the noble science of subduing the horse. But the fearless and practised Horse teacher is ready for the encounter. His eye was fixed upon him, he foresaw the coming storm, and as the open mouthed and high-raised hoof of the indignant and enraged animal approach, he seems to meet them:

"Cut when the shadow's o'er his brow he slips aside,
So nimbly slips, that the vain robber past
Through empty air, and he so high, so vast,"
Who dealt the stroke come thundering to the ground;
Nor rest, nor pause, nor breathing time is given,
But rapid as the rattling hail from heaven,
Beats on the house-top, showers of "horseman's shot"
Around the "Stallion's legs fly peppering hot."
From this to the finish is all "tweedle dee,
You now have my secret; so hand me my fee."

We did hand Jonathan his fee, and I have no reason to repent it, for I believe that this method has more than once saved my life, although I am no Jack Mytton to throw myself under a horse's heels, or ride full tilt over a rabbit warren.

JOHN LEWIS,
Late of Spottsylvania Co., Virginia.

BEET SUGAR ABROAD.

"We learn from Ulm," says the Carlsruher Gazette, "that the manufacture of sugar from beet root is extending rapidly in that country. A discovery has just been made which will add great importance to this branch of commerce. It has been ascertained that paper may be made from the residuum of the root after the juice has been extracted. Experiments have been tried with such success, that we may confidently declare that beet

root will ultimately be capable of producing excellent paper."

A letter from Odessa gives the following account of the progress of the manufacture of beet-sugar in Russia. In Moscow and its neighboring governments, the richest, most populous, and enterprising of the empire, these establishments have, during the last five years, increased at the rate of 40 per annum. A number of the land-owners have induced their tenants, by offering premiums, to substitute the cultivation of the beet-root for that of hemp. In Southern Russia they are more backward in this respect. A Polish nobleman, now a refugee in Paris, endeavored about ten years ago to naturalize the manufactory of beet root sugar on his estate in Podolia; but the infant establishment shared the fate of its founder, whose property was confiscated, and the manufactory was ruined. An impression, however, was made by the example: and now, from the Danube to the Don, nothing is talked of but the numbers of wealthy land-owners who are becoming planters of beet-root and manufacturers of sugar; so that, where eighteen months ago, 100lbs. were produced, it is expected that the quantity made during the present year will amount to 100,000 lbs. An expectation is said to be entertained, that in ten or fifteen years at the utmost, Russia will produce sugar enough, not only for her own consumption, but for the supply of Turkey in Europe.

The Wheat Crop.—As far as we understand, the prospects in Virginia for wheat are unfavorable. It is however improving—and in some portions of the State, if the weather be propitious, the crop may turn out to be a fair one. The Alexandria Gazette states, that in one of the best regions of Virginia for growing wheat, one farmer had ploughed up 50 acres, and would do the same by 40 acres more, with the view of seeding oats and planting corn—and that the same course would be generally pursued in that neighborhood—but in Loudoun, the prospect for wheat, in one neighborhood, was not so bad as represented.

The Williamsport (Md.) Banner reports very unfavorably of the wheat in that vicinity—and also in the neighboring county of Berkeley, in Virginia—especially that portion of it which is contiguous to the Potomac. The Hanover (Pa.) Herald, on the other hand, states that the crop may be a fair one.

In Buckingham county, we understand, that the prospect is tolerably promising—and on the whole, we hope, it is not so generally gloomy through the State, as was represented some weeks since. The winter has retarded the vegetation of the wheat—and unless it be ascertained, that the roots are killed, we should think it best for the farmer to have a little patience with his fields, before he ploughs them up.

The small lots of *Italian Spring* wheat, which were sown in February and March, for the first time in this part of Virginia, at present look well. We hope the experiment will be fully tried, and the results fairly reported.

A few of our planters are about trying the *Baden many-eared (Md.)* corn—we wish more seed could be obtained to enlarge the experiment.

Richmond Enquirer.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	1 40
CATTLE, on the hoof,	100lbs	9 00	11 00
CORN, yellow	bushel	90	
White,	"	78	
COTTON, Virginia,	pound	17	19
North Carolina,	"		
Upland,	"		
Louisiana 20a21-Alabama	"		
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's,	"		
Do. do. Superfine, ex.	"	8 75	8 50
SuperHow. st. in good de'd	"	9 00	
" wagon price,	"	8 25	8 50
City Mills, super,	"	8 00	
Do extra,	"	8 75	
Susquehanna,	"	9 00	9 50
Rye,	"	6 50	6 75
Kiln-dried Meal, in hhds.	hhd.	21 00	
do. in bbls.	bbl.	4 50	
GRASS SEEDS, red Clover,	bushel.	6 00	7 75
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"		3 00
Tall meadow top,	"		2 75
Herds, or red top,	"		1 25
HAY, in bulk,	ton.	16 00	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 50	8 00
Slaughtered,	"		
HOPS—first sort,	pound.	17	
second,	"	13	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	43	47
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.	4 87	
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGE,	pound.	3	4
RYE,	bushel.	90	
Susquehanna,	"		none
TOBACCO, crop, common,	100 lbs	3 00	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrapery, suitable	"		10 00
for segars,	"		10 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	16 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 50	1 65
Red, best,	"	1 50	1 65
fair to good 100a130, inferior	"	35	36
WHISKEY, 1st pf. in bbls.	gallon.	36	38
" in hhds.	"		no sale
" wagon price,	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	2 00	
To Wheeling,	"	2 25	
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do,	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET.

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do exclusive of the wheels, shafts and axle, ..	60
For applying the machinery to a common cart ..	45
For the machinery alone	40
Including the patent fee in each case.	to 28 3t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	13	
BACON, hams, new, Balt. cured, ..	pound.	17	18
Shoulders, do.	"	11½	12
Middlings, do.	"	do	do
Assorted, country,	"	—	9
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,	"	23	28
CIDER,	barrel.		
CALVES, three to six weeks old, ..	each.	5 00	7 00
Cows, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	1 81	1 87
CHOP RYE,	"	2 00	2 12
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.		
No. 2,	"		
Herrings, salted, No. 1,	"	3 00	
Mackerel, No. 1, ——— No. 2	"	10 00	
No. 3,	"		6 75
Cod, salted,	cwt.		4 00
LARD,	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virgin. 2a2½
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg, ..
Banks in Baltimore,	par	Petersburg,
Hagerstown,	¾a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do	¾	Danville,
Do. payable at Easton,	¾	Bank of the Valley, ..
Salisbury,	1 per ct. dis.	Branch at Romney,
Cumberland,	2	Do. Charlestown, ..
Millington,	do	Do. Leesburg,
DISTRICT.		Wheeling Banks,
Washington,		Ohio Banks, generally ..
Georgetown,	Banks, ¾.	New Jersey Banks gen. ..
Alexandria,		New York City,
PENNSYLVANIA.		New York State,
Philadelphia,	¾a	Massachusetts,
Chambersburg,	1	Connecticut,
Gettysburg,	do	New Hampshire,
Pittsburg,	¾a3½	Maine,
York,	2	Rhode Island,
Other Pennsylvania Bks. 1½a2		North Carolina,
Delaware [under \$5],	¾a4	South Carolina,
Do. [over 5],	¾a2	Georgia,
Michigan Banks,	10	New Orleans,
Canadian do,	10	

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the county. It is remarkably healthy and hardily situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; CASH will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to
EDWARD P. ROBERTS,
Baltimore, Md.

DURHAMS AND DURHAM GRADES.

I have for sale a beautiful full-bred Durham bull, 5 years old, proceeding from the finest of the improved Durhams; a two year old do. 15-16ths blood, the ALL-ROY being DEVON and coming from Flora, that Queen of cows, raised by the Hon. Charles A. Barnitz, which, when fresh, gives 20 pounds of butter a week.

ALSO 8 half-bred milch cows, mostly springing at this time: these are by Col. Powell's improved Durham bull Monk, out of capital Pennsylvania cows, and warranted to give from 16 to 20 quarts of milk a day when fresh.

All applications must be post paid. Address
EDWARD P. ROBERTS,
Baltimore, Md.

HORSES, GEARS, &c.

At Auction, on FRIDAY AFTERNOON, May 5, 1837, at 4 o'clock, I will sell at the Canton Grounds, at Daniel Mooney's House, opposite Kendall's Race Course, viz: 30 horses, warranted sound; 30 carts.

The whole of which are so well adapted for all the purposes required for use—that any further description may not be conceived necessary. The Carts and Harness were all purchased within the last twelve months, and the Harness is made in the very first style.

The Steam Boat Canton runs to the above place on each afternoon, and will give all an easy and cheap opportunity to attend. Some of the Horses are blood, one particularly. A full blood young Colt. Mr. Kendall has the pedigree.

The sale will be positive, as the proprietor is about changing his business. Every animal will be warranted—and may be had at private sale by applying to

DANIEL MOONEY,

On the premises, or to

H. W. BOOL, Jr. Auct.

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind; it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herds Grass Seed.

J. S. EASTMAN.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution.

ap 4

J. S. E.

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THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 2.

BALTIMORE, MD. MAY 9, 1837.

Vol. IV

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 9, 1837.

CROP PROSPECTS.

A letter in the *New Orleans Bulletin* of the 24th of April, says, that "large crops of cotton and corn have been planted, and bid fair to yield an abundant return."

The *Upper Marlborough Gazette* of the 27th of April, says:

"We are informed that tobacco plants have been materially injured by the late frosts. In some instances whole beds have been destroyed. Early vegetables of all kinds have suffered considerably."

The *Centreville Times* says:

"The most of our farmers have finished planting their corn crop. There is but little improvement in the appearance of wheat and rye, and the oats seem to have come up badly. Our farmers will have to bend all their means to the cultivation of their corn—manure all they can, work it early and nicely, and the result we trust will repay them."

The *Hagerstown Torch Light*, says:

"The wheat crop, in many instances, has somewhat improved in appearance, within the last fortnight. If the season should be favorable, the yield will be much better than was expected a few weeks since."

We have conversed with several gentlemen from several of the counties on the Eastern Shore of Maryland, and they all concur in opinion, that much less wheat was seeded last fall on that shore than had been done for many years before, and that, even should the present disastrous prospects be succeeded by fruitful crops, the aggregate yield must be greatly below that of former years. In Kent county we learn that, owing to the difficulty of procuring seed-wheat, not more than one-fourth the usual quantity was sown.

In a conversation with an intelligent farmer of Lancaster county, Pennsylvania, a few days since, we learnt with regret that the prospects for a crop of wheat was any thing but encouraging, that ma-

ny of the fields had been hardly dealt with by the frosts; some so much so that their owners had ploughed them up with a view of putting in corn. In 1835 he had gathered off of 55 acres in wheat, 1855 bushels of grain, but last year, from the same quantity of land, he had only got 700 bushels, and that last fall in consequence of the uncertainty of the crop, he had sown but a few acres in wheat.

From Jefferson county, Va. we learn that the prospects are any thing but flattering; there, too, farmers were, in numerous instances, ploughing up their fields. Our informant assured us, that prior to his leaving home, he had directed a large portion of one of his fields to be ploughed up.

Lancaster county, Pennsylvania, and Jefferson county, Virginia, as the reader will recollect, have been distinguished in past years for their great yields of wheat, the soil being strong limestone, and peculiarly adapted to the growth of this grain; but even such soils cannot stand the alternations which for the last few years have marked our winters.

A superior Cow—We visited, a few days since, the farm of Mr. Beltzhoover in company with an esteemed friend from Marietta, Pa. to view the fine Durhams and other stock, which reflect so much credit upon the proprietor of that establishment, and his skilful assistants. While there our curiosity was excited by the immense volume, which the udder of an Irish poll cow presented, and to gratify it requested that we should be present when she was milked, it being near the hour for the performance of that service. She was milked at 6 P. M. having been previously milked twice before that day, to wit, at 5 and 10 o'clock, A. M. She gave 14 quarts, and the cow-herd assured us, that she had given more at the first milking that morning. She is a noble framed animal, large and well formed, with a back straight as a rule, ample hips, square buttocks—in a word, she possesses all the marks of what she really is, a first rate milch cow, with nothing left for improvement, though directed by all the genius of a Collings, a Berry, a Whittaker, or a Denton.

On the culture of Peas—A writer in the *Genesee Farmer*, observes, that the custom used to be

among farmers to sow three or four bushels of peas to the acre, and they usually obtained about 15 bushels; that some years ago he went from home, directing his farmer to sow two acres of peas just as he sowed wheat, having reference to the manner of sowing in drills or broadcast. The farmer, supposing that he had reference to the quantity, sowed only one and a quarter bushels to the acre. On returning he found his peas very thin, and let it go for an experiment, and it proved to be a profitable one; for he harvested 76½ bushels. He has since followed out the experiment, and generally gets about twenty fold. This writer disapproves of sowing oats among peas, as the oats weaken the pea-vines and lessen the crop. He thinks that peas are a good substitute for Indian corn in feeding cattle, horses, sheep and swine, and observes, that they produce better in cold seasons than in hot.

Sow Spring Wheat late.—Reuben Wheeler, of Vergennes, Vt. having suffered the loss of his wheat crop, by the grain worm, for several successive years, adopted the practice of sowing his spring wheat late, and has in this way had fine crops, while the early sown grain has been uniformly destroyed by the worm. The same practice has been adopted by his neighbors, with like success.

Extract from a letter to the editor of the *Farmer and Gardener*, dated

Three Hills Farm, near Albany, }
April 30th, 1837. }

MR. E. P. ROBERTS:

Dear Sir—We have had for the last ten or twelve days, cold dry weather, accompanied with high winds from the N. W. Vegetation is still very backward—grass did not seem to start until a few days since. Friday and Saturday have been more congenial; but we are now suffering from a drought. We have had neither rain or snow of any consequence for the last three weeks. Until within the last week we have had pretty severe frosts in the nights. The frost is not entirely out of our garden yet. The snow on the Hilderbergh mountains has disappeared, and they begin to wear the appearance of a warmer atmosphere.

In consequence of the ravages of the grain worm, our farmers have mostly abandoned the cultivation of winter wheat in this vicinity. Some complaints, however, are made by those who had the courage to try it again, of the severity of the winter, and it is very doubtful whether they will obtain half a crop, even should the worm fail to do his part of the work of destruction. Rye, so far as I have noticed, promises to be a good crop, and even now, should we have a favorable season, our barns and storehouses may groan under the weight of produce.

You ask if I have sown any spring wheat, and when? I neither cultivate wheat or rye. The demand for spring wheat has been greater this spring than was ever known here before. The variety sold has been of the "*Italian Spring Wheat*." Nothing like a supply, however, could be obtained, although the price was up to \$5 per bushel. This is about the time to sow it—but Mr. Buel informed me last evening that he had not put his in the ground yet, nor does he intend to until next week—having the fear of the "*grain worm*" before his eyes.

Great use of Barley has been made here, as a substitute for buckwheat—and many prefer it, for cakes.

Through the kindness of Geo. Mannors, Esq. British consul at Boston, I obtained a small sample of the *Egyptian or naked Barley*, which I intend to cultivate, and should I be successful, I think it would be quite an acquisition in the list of good things for the breakfast table. I am informed by some of our farmers, that it, or a similar kind, has been cultivated here, and abandoned, on account of some difficulty in the vegetating qualities for malting.

You also ask if I could supply ——— with 20 bushels of Dutton corn. I have none, and on my way to the city yesterday, I called on Judge Buel for a supply. I then called on Mr. Thornburn, our seedsman, and I could not obtain as many quarts. He has purchased all the seed corn within 20 miles of Albany, and cannot supply the one-half of his orders. I received as a donation from Mr. Hatch, of Poughkeepsie, one bushel of his "*early Canada corn*," which I intend planting with that I obtained from the north, of which yours is a specimen.

I might be tempted by great offers to sell some of my cows and heifers. I have one bull, "*Carlos*," 7 years old, got in England out of an imported cow, and a two year old, both of high blood and good pedigrees, which I would sell on moderate terms. "*Superior*" I have sold. Most of the cattle going to Ohio and Kentucky, pass up the Canal.

I have obtained, to me, a new variety of oats—which were cultivated on an adjoining farm last year. They are called "*horse-mane*" or "*one sided oats*," from the seed all hanging on one side. They are very heavy, large and plump kernel, white, and last year yielded a better crop than any other variety. I have also sown for my main crop the heavy "*black oat*." This information may not be of much consequence or interest to you, and I merely mentioned it as it happened to revolve in my mind.

From the amount of Ruta Baga and other root seeds, and the great demand for drills, I am led to believe that the "*root culture*" is gaining ground in this section very fast. More seed has already been disposed of than for four years put together, before. Those who tried a small piece, last year, of a quarter and half an acre, are putting in from one to three acres this. I am pleased to see you urge the farmers to try the experiment, even on a small scale.

I wish you great success in your laudable zeal, not only with your pen, but with your hands, to encourage and stimulate the farmers to greater exertions, and more attention in the selection of seeds and animals. I am much pleased with the

Farmer and Gardener, and class it among the first agricultural papers in our country.

Truly, yours, CALEB N. BEMENT.

CULTURE OF SILK IN AMERICA.

We copy the following editorial notice and the Report on the subject of Silk and the expediency of promoting it, from the *Richmond Enquirer*.—By the remarks of the editor of that paper, it will be seen that an excellent spirit is abroad in the Old Dominion, and in all sincerity we say, "God speed the good work."

We have seized the opportunity of an open day to lay before our readers a very interesting Report presented to the last Congress by Mr. Adams, on the raising of the Silk-worm, and the manufacture of Silk, in the United States. The reader will probably be as much surprised as we were, to see the extent to which this employment is carrying itself in our country. In Virginia, we are not idle—as two companies at least have been organized. In addition to these, we are apprized, that the U. S. Arsenal, above this city, which has been for some time discontinued for that purpose, and was going to ruin, may probably be converted into a Silk Laboratory—and that 60 or 80,000 mulberries are expected to be planted out in the grounds. In the neighborhood of this city, we know that attention begins to be devoted to the cultivation of the Mulberry; particularly, the broad leaved Chinese Mulberry; which is now easily propagated by slips. Among others, Mr. John Carter, the skilful and successful cultivator of the Vine, has planted out this spring about 40,000 slips of this succulent species of Mulberry.

HOUSE OF REPRESENTATIVES.

February 25, 1837.

Read and laid upon the table.

MR. ADAMS, of Massachusetts, from the Committee on Manufactures, to which the subject had been referred, made the following

REPORT:

The Committee on Manufactures, to whom, at the last session of Congress, was referred a resolution of the House, instructing them to inquire into the expediency of promoting the culture and manufacture of Silk in the United States, respectfully report:

That, in fulfilment of the instruction of the House, Mr. Andrew T. Judson of Connecticut, then a member of the House, and of the committee, was authorized and requested to continue and pursue the inquiries which, for some time before, he had already commenced, to obtain from various parts of the United States, the information respecting the actual condition and prospects of those important articles of cultivation, which might most effectively promote the purposes of the resolution of the House; that those inquiries were accordingly pursued with equal perseverance and intelligence by Mr. Judson, but without his being able to complete them before the close of that session of Congress; that, previous to that time, his services being required in another department, he resigned his seat as a member of the House.

But Mr. Judson did not, on that account, intermit or relax in the researches upon which he had

devoted his time and attention in relation to the cultivation and manufacture of silk. He obtained the assistance and co-operation, in the prosecution of his inquiries, of F. G. Comstock, Secretary of the Hartford County Silk Society, and editor of the *Silk Culturist*, a periodical journal, published at Hartford, and specially devoted to this interesting cultivation. Twenty-two numbers of this valuable work have been transmitted by Mr. Comstock to the committee, together with a practical treatise by him on the culture of silk, adapted to the soil and climate of the United States.

A letter from Mr. Judson, of the 21st of January last, to the chairman of the Committee on Manufactures, contains a concise summary of the information collected by him pursuant to the charge of the Committee, and in furtherance of the views indicated by the resolution of the House. The chairman is instructed, by the committee, to present that letter to the House, and to move that it be received as part of their report.

JOHN QUINCY ADAMS.

HOUSE OF REPRESENTATIVES, U. S.,
February 25, 1837.

CANTERBURY, Connecticut, Jan. 21, 1837.

SIR—Having had the honor to be a member of the Committee on Manufactures at the last session of Congress, when that committee was instructed, by a resolution of the House, "to inquire into the culture and manufacture of silk in the United States," and having been directed by the committee to make the report, I have devoted that attention to the subject which its nature, and my other duties, would allow; and now have the honor of communicating to you the result of my investigations, that it may be submitted to the members now composing the Committee on Manufactures.

It was my intention to have prepared a report at the last session, but the time intervening between the assignment of the duty to me, and the close of the session, rendered it utterly impracticable. The gentlemen who had engaged, and were engaging, in the business, were scattered throughout the whole extent of the country, and it was impossible to ascertain what progress they had made in the short time allotted me. The want of this information, and the suggestion of a gentleman whose time is exclusively devoted to the introduction of the business, and who kindly proffered me the use of his extensive correspondence, and the aid of his personal services, in collecting the facts during the recess, induced me to defer it till the present session. Under these circumstances, I have thought the subsequent resignation of my seat in Congress would not exonerate me from the discharge of the duty thus imposed, or furnish an apology for neglecting it. In addition to this, I was aware the brief period prescribed by the Constitution for the present session, would be inadequate to a thorough investigation, should the duty of preparing a report be assigned to another member of the committee, and the expectations of the House and the public must, at least for a time, be disappointed. This explanation will, I trust, exempt me from what otherwise might appear to be an officious interference with the business and duties of the committee.

It is already known to the committee that the culture of silk has been attempted in this country at different periods of time, the principal, however, of which, fall within the last century. It would be interesting, and probably useful, to trace the history of this branch of rural economy, from the first attempt to introduce it in Virginia, in 1623 by James I. to the present time; but as it has been compiled and embodied in a manual prepared under the direction of the Secretary of the Treasury, in pursuance of a resolution of the House, passed on the 11th of May, 1826, I have deemed it advisable to confine my inquiries to the present state of the culture and manufacture of silk, and the more immediate causes which have produced it.

The present state of these branches of American industry, and the interest which is so extensively felt in relation to them, owe their origin principally to the efforts of a few patriotic gentlemen of the county of Hartford, in Connecticut. In the year 1834, they formed an association under the name of the "Hartford County Silk Society," for the purpose of collecting and disseminating practical information relating to the best methods of cultivating the various species and varieties of the mulberry, and the rearing the silk-worm. To facilitate their operations, and open a channel of communication with the public, they immediately commenced the publication of a monthly periodical, under the significant name of the "Silk Culturist and Farmers' Manual," and placed it under the editorial charge of the Secretary of the society. The editor immediately entered upon the discharge of his duties, and has since devoted his whole time and attention to the subject. The officers and members of the society, particularly the President and Secretary, being practical men, and ardently devoted to the cause as a great national object, have been incessant and unwearied in their exertions to accomplish its general introduction. In their endeavors to draw the attention of the public, and particularly agriculturists, to the subject, and stimulate them to engage in it as an important and lucrative branch of rural economy, they have cautiously, and I think wisely, passed over the ingenious theories of foreign writers, and confined themselves to the results of experiments fairly and faithfully made, and the simple statement of facts. This course will approve itself to the understanding of every individual of reflection, especially when the variation of soil and climate of different countries, and the dissimilarity in the habits and pursuits of their inhabitants, are taken into consideration.

The anticipation of a sudden transition from poverty to competence, or from competence to wealth, is, of itself, a powerful incentive to embark in any new project which presents itself to the mind; but the disappointment and mortification consequent upon it, when illusory, are as painful as the success is gratifying when real.—The proneness of man to "air-castle building," needs no encouragement, but requires restraint; and the individual or individuals who take the responsibility of recommending to the farmer a deviation from his ordinary routine of husbandry, must be careful that the advantages proposed are real rather than imaginary, or they will ultimately

awaken in their own bosoms painful instead of pleasurable sensations. These principles seem to be the cardinal points in the faith of the Hartford County Silk Society, and by them the members appear to have scrupulously governed themselves in promoting the great object of their association.

The publication of the Silk Culturist, at a merely nominal price, and on the personal responsibility of the Secretary, has exerted a powerful influence in awakening a deep interest in these new branches of American enterprise. The extent of this interest may be judged of by the fact, that most of the political, commercial, and literary publications of the day, contain paragraphs urging farmers and others to engage in them, and assuring them of their practicability and profit.—These show the light in which the subject is viewed by intelligent men, in different sections of the country as a public object. The extent, also, of the interest felt by individuals in the success of the enterprise, as a source of individual wealth, may be estimated by the fact, that there are now in the office of the Silk Culturist from 3 to 5000 letters of inquiry, &c., in relation to it. This interest is further manifested by the fact, that several other periodicals devoted wholly and partially to the subject have been started and are co-operating in the great work.

But notwithstanding both the public and individuals may be deeply interested in the culture and manufacture of silk, its introduction into this country may be unattainable. Our soil and climate may not be congenial to its growth, and the number, habits and pursuits of our population may not be adapted to its manufacture. These, are insuperable difficulties, if they exist; and consequently, I have given them a prominent place among the topics of investigation. The result of all my inquiries in relation to the adaptation of our soil and climate are of the most encouraging character. From all the information I have been able to obtain, I am fully satisfied, that there is not a state in the Union, and perhaps I might say not a county, where the mulberry may not be cultivated, and the silk worm reared. Experiments have been made in all parts of the country, and their success has established the fact, that the mulberry will grow, and the silk-worm will thrive, throughout the whole length and breadth of the United States. The rigor of northern winters has, ordinarily, no injurious effect upon the Italian mulberry; and the insect which feeds upon its foliage, produces the silken fibre, being in a torpid state, and secluded from the frost during the cold season, sustains no injury, or even inconvenience, from its severity. It was formerly doubted whether the *morus multicaulis* could be acclimated in the Northern and Middle States; but late experiments have satisfactorily proved that, by cutting down the shoots in autumn, the roots will endure the coldest winters, and send up a new growth of shoots in the spring, and produce an abundant crop of foliage. This appears to be the method successfully pursued by the silk growers in India; and with the same treatment in this country, there is no doubt of its acclimation.

The introduction of this valuable variety of mulberry, at a time when the attention of American silk growers was aroused to the subject, and

the facility with which it is cultivated and multiplied to an indefinite extent, affords, in my opinion, a full guaranty against those failures and interruptions in the business to which it has heretofore been subjected. It has been ascertained by experiment, that the foliage which may be gathered from annual shoots upon an acre of land will furnish food enough to sustain a family of worms sufficiently numerous to make 128 pounds of silk, worth, at present prices, \$640. Though there is now but little doubt that, treated in this manner, the *morus multicaulis* will, in the end, supplant the Italian, yet it is adjudged advisable, by most silk growers, to continue its cultivation. Its great value for fuel and timber, especially for ship-building will ever make it worthy of cultivation; and should any unforeseen circumstance render the successful cultivation of the former uncertain, or impossible, the silk grower will be able to make silk from its foliage, of good quality, and in large quantities.

An imaginary difficulty in rearing the worm, and enabling it to make its cocoon, has been urged as a reason against attempting it; but I am happy to find that the process has been so far simplified as to be intelligible to the most unlearned in rural affairs. So simple and easy is the care and management of the worm, during its brief life of labor, that children, with a little instruction and experience, can supply all its wants both in sickness and in health, and render it all the assistance and attention necessary to its comfort and the completion of its labors. The process of reeling, also, has become so familiarised, that children perform it with skill and dexterity. In foreign countries, where silk is extensively grown and manufactured, the business of reeling is kept, to a great extent, distinct from growing; but I think it desirable for every grower in this country to acquaint himself and family with the art, as the value of the silk is more easily and accurately ascertained, and is less liable to injury in transportation. Thus far, the production and manufacture of silk may be carried on in the family of every farmer, and at a profit far beyond his expectations.

From all the facts in my possession, I am satisfied that every farmer may devote a portion of his farm and attention to the growth of silk, and thereby much increase the value of its products. The gathering of the foliage, and the feeding of the worms, may be performed by the children, and such other members of the family as are incapable of more arduous labor; and who, if not thus employed, would spend their time in idleness, or, what is worse, mischief. If productive labor is a principal source of wealth, both to nations and individuals, it is desirable it should be increased to its greatest possible extent. This can only be done by seeking out objects to which the labor of the young, old, and infirm, is adapted; and, among these, I know of none more appropriate than the culture of silk. The same remarks are substantially true with respect to its manufacture.

It has also been erroneously supposed, that the manufacture of silk was attended with extraordinary difficulties; that it required much complex and expensive machinery, and a skill which Americans were incapable of acquiring; but it has been found to be as simple as that of cotton or

wool: and requiring a far less expenditure in buildings, machinery, and fixtures. The weaving of silk fabrics on power looms has been attempted, and the success that has resulted from the experiment is of the most flattering character. Fabrics for gentlemen's wear, cravats, &c., have been woven on power looms, which, for beauty of texture, fall but little, if any, below those of foreign manufacture. In this respect, we are already in advance of the silk manufacturers of Europe and India; and it is believed that the advantage the American manufacturer will derive from the aid of labor-saving machines, will more than counterbalance the advantage the foreign manufacturer does or can derive from the reduced price of labor in countries of a more dense population.—Hence, it is believed that this country can successfully compete with other countries, both in the culture and manufacture of silk.

The importance of introducing this species of manufacture may be estimated by the fact, that the importations of manufactured silks, during the year ending the 30th of September last, amounted to \$17,497,900, being nearly a million more than the previous year. Most of this enormous amount is consumed in this country, and is an annual tax upon the consumers. It is also to them and the country a total loss; for, it is believed there are in the country a sufficient number of laborers to produce and manufacture the whole amount, who are unproductively or unprofitably employed. If this be so, it follows, as a necessary consequence, we sustain an annual loss of double that amount in our unemployed and misapplied labor. This amount will be astonishingly increased, if we add to it all the evils of crime and pauperism, which are the legitimate and unavoidable consequences of idleness and unproductive labor. The connexion between idleness and poverty has not, and never will be, dissolved, so long as the relation between cause and effect exists; and though crime may not be a necessary concomitant, yet it is a common attendant. The same is true, though in a less degree, in regard to misapplied labor. The fruits of unproductive labor are poverty and wretchedness, and these are often the remote, if not the immediate, cause of crime. The importance, therefore, of the culture and manufacture of silk, both in a pecuniary and moral point of view, is immense.

Our independence also urges us to engage in the culture and manufacture of silk. Fabrics, of which silk in the whole, or a component part, are indispensable. In the early ages of the world, when the customs and fashions of society were rude and unpolished, silk was considered a luxury which none but princes could indulge; and even in them it was supposed to be unpardonable extravagance; for it was among the enumerated prodigalities of Heliogabalus, that he had a garment made wholly of silk. The Emperor Aurelian, also, 270 years afterwards, refused his empress a silk robe, merely because he could not incur the expense. In still later times silk has been considered luxurious, for it is said of James I., before his accession to the English throne in 1603, that he was compelled to borrow a pair of silk hose of the Earl of Mar, when he first appeared before the ambassador. But the customs and the habits of society have since undergone an astonishing change. Silk is no longer considered

a luxury, but an indispensable article. So common has it become, that it forms a considerable part of our wardrobes, and enters more or less into almost every garment, both of male and female dress. However unnecessary and extravagant silk may have anciently been considered, it cannot now be dispensed with, neither can its consumption be confined to the wealthy. Time was, and now is in some countries, when different orders in society, growing out of rank and wealth, existed; but this state of things no longer continues in this country. Wealth and descent are no longer the thermometer of respectability, but industry, frugality, and the practice of the moral and social virtues. The poor as well as the rich must be clothed in silk: and why should they not? They are as meritorious, and often more so.—The question is, therefore, settled, that there can be no diminution in the consumption of silk; and unless measures are taken to encourage its culture, we must be forever dependant on foreign labor for its production. Though foreign laborers may be dependant on us for the consumption of their products, yet it detracts much from our independence to be dependant on them for necessary articles of clothing.—It is true, while our amicable relations with foreign countries continue, we shall be supplied; the advantage they derive from this item of our commercial dealing will ever afford us a guaranty against want in times of peace, yet our intercourse may be interrupted by war, and we be thrown upon our own resources for the production of this staple article of consumption. But if this state of things cannot be reasonably anticipated, our love of independence, and, above all, a prudent national economy, should prompt us to prosecute a branch of industry which promises such important results, and the practicability or feasibility of which is no longer a problem.

The importance of this branch of rural economy is also much increased, by the facilities it affords to all to attain competence and wealth. There is probably no other business, in which the same amount of capital will yield an equal amount of income. It will not be expected that I shall go in to an accurate calculation of the product and profit of a plantation and cocoonery; yet, perhaps, I ought to say, that, within the range of my own observation, there can be no better investment of capital. The small amount of capital necessary to a commencement of the business is also a facility which no other branch of business, within my knowledge, holds out to the enterprising. A few acres of land of ordinary fertility, and a few dollars in money for the purchase of seed and plants, will enable a silk grower to lay the foundation for a plantation on a considerable scale.

Another facility peculiar to the business is the ease with which operations are extended, without a corresponding extension of capital. The ratio in which the *morus multicaulis* may be multiplied, by means of cuttings and layers, is truly astonishing. Experiments have proved that, with a little labor and attention, they may be more than quadrupled every year. This will enable the farmer in moderate circumstances to compete with the capitalist, and prevent monopolizers from engrossing the whole of the business and its profits. To the individual of limited means, and a large family of children dependant on him for support and education, the culture of silk holds out encour-

agement of extraordinary promise; while, at the same time, it affords ample opportunity for the capitalist or the incorporated company to make large investments with the moral certainty of success.

The culture and manufacture of silk must also, for a long time at least, be free from the depressions and embarrassments which, at times, are thrown upon other species of manufacture by enterprise and competition.—Before the present prices can be materially reduced, an amount of domestic silk equal to the large amount annually imported must be produced; and this cannot be expected while enterprise and labor have so many objects on which to expend themselves as the various sections, climates, interests and pursuits of this extensive country present. The disproportion also, which has existed for the last 20 or 30 years, between the increase in the consumption of silk, and the increase of population, and which is becoming greater every year, will, it is believed, prevent the American silk growers, with all the aid and encouragement which may be extended to them by the National and State Legislatures, from producing the raw material in sufficient quantities to supply the demand, for at least another country.

A good beginning, however, has been made, and the business commenced under the most favorable auspices. In the month of September, I caused a circular to be prepared, propounding 26 interrogatories to silk growers, manufacturers, and other gentlemen interested in the subject. Several hundred were circulated, and many have been returned with answers to the inquiries. It is, however, to be regretted, they were not forwarded at an earlier day, as a more punctual and general return would have been the consequence, and a greater amount of information collected. The facts, however, as far as they have been collected, (and they are as numerous and circumstantial as under the circumstances could be expected,) are of the most flattering character. From the answers to the interrogatories, the communications of gentlemen in different parts of the country, and such other means of information as I have been favored with, I am enabled to give the following exhibition of the progress and prospect of both branches of the business. The statements being made from correct data, may be relied on, as approximating to accuracy, so far as they go: but it is reasonable to suppose that the view is imperfect, as the business has probably been commenced in many parts of the country, from which no information has been received. These of course, are not embraced: and the business is, no doubt, further advanced, and in a more prosperous condition than will be exhibited.

New England States.

The six New England States are, more or less, engaged in the culture and manufacture of silk; and four of them are encouraging the business by legislative bounties. In Maine, a bounty of five cents on every pound of cocoons grown, and fifty cents on every pound of silk reeled, is paid from the State Treasury. The growing of silk has also been commenced in several towns in different parts of the State, and the experiments which have been made confirm the belief that the climate is no obstacle in the way of the silk grower; especially from the foliage of the Italian mulberry.

In Newport, Fryeburg, Saco, Hiram, and Limington, nurseries have been planted, and are said to be in a flourishing condition, especially in the first mentioned town. This town is situated at about equi-distance between the Kennebec and Penobscot rivers, and within a few miles of the 45th degree of latitude; and yet the young plant stood the severity of the last winter uninjured. A gentleman in Fryeburg has 10,000 or 12,000 Italian mulberries, 4 years old, and several thousand more in his nursery. He fed the last season 5000 worms, which produced about the usual quantity of silk. His confidence is so strong in the success and profit of the business, that he intends to extend it as fast as his means will admit. About \$40 worth of silk was made in Hiram the last season, and manufactured into sewing silk; the quality of which is said to be equal to the best Italian. A few pounds were also made in Limington, of excellent quality.

In New Hampshire, the business has been begun, and is prosecuted with considerable spirit, though no public encouragement is given. At Concord, there is an incorporated company, with a capital of \$75,000, for the growth and manufacture of silk. The company have purchased a farm of 250 acres, and are stocking it with both kinds of mulberry as fast as circumstances permit. Individuals, also, in most parts of the state, are planting the mulberry preparatory to feeding the worm. In the vicinity of Portsmouth, many gentlemen are engaging in the business. Experiments have also been made in South Weare, Newport, Dunbarton, Warner, Hopkinton, Keene, and many other towns; and the results have satisfied the experiments that the business is both practicable and profitable.

The legislature of Vermont, by an act passed on the 10th of November, 1835, have authorized and directed the state treasurer to pay a bounty of ten cents on every pound of cocoons grown within the state. This bounty, and a good degree of interest which previously was awakened, has given the business a good beginning. In most parts of the state seed has been sown and planted, and small quantities of silk have been made. In Burlington, Brattleboro', Woodstock, Middlebury, Bennington, South Hero, Montpelier, Orwell, Shoreham, Guilford, Putney, and many other places, the subject is receiving attention, and preparations are making for operations on a large scale. The legislation of Massachusetts, for the encouragement of the growth of silk, is of the most liberal character. The bounty on all silk grown, reeled and thrown in the commonwealth, is \$2 a pound, which is considered by silk growers to be sufficient to defray all expenses attending its growing, reeling and throwing. Before the passage of this law, extensive nurseries and plantations were commenced or projected; but the business has since assumed a more general character. The interest which is felt in this state is attributable, in a great degree, to the efforts of Jonathan H. Cobb, esq. of Dedham. This gentleman has been several years engaged in the business, and the success he has had has inspired others with confidence in it. There are several incorporated companies formed, some of which has commenced operations. Among them is the New England Silk Company, at Dedham, under the superintendence of Mr. Cobb. This company has a capital

of \$50,000, with liberty to extend it to \$100,000. It has already about 20 acres planted with the mulberry, and about 80 more in preparation. In relation to the present state of the manufacturing department, Mr. Cobb says: "We have 16 sewing silk machines, some of which have been in operation, and others are nearly completed for running. But a small quantity of sewing silk has been made yet. We have found organzine and tram, or warp and filling, to be in greater demand than heretofore; but in consequence of the 40 per cent. protection on sewing silk held out by the government, we have been building a large mill this season, and are now about ready to manufacture 200 lbs. per week of sewing silk, which, at present prices will fetch \$2,000; and should the tariff remain and the price keep up as it now is, we shall make a heavy business of it. About \$10,000 worth of silk goods, part with a mixture of cotton, have been manufactured in the year past—about one-half from foreign, the rest from domestic silk. We shall continue to furnish, as we have in years past, the warp and filling for looms in different parts of the country. The Tuscan loom was first started here, and we have supplied many hundreds of them with warps, for two or three years past."

The Atlantic Silk Company, at Nantucket, has a capital of \$40,000. The object of the company is the growing and manufacture of silk. The factory is already in operation, and the fabrics which have been made are highly creditable to the manufacturers. William H. Gardner, Esq. of Nantucket, is President of the company.

The Northampton Silk Company has a capital of \$100,000, with liberty to extend it to \$150,000, and under the superintendence of Samuel Whitmarsh, Esq. who is also President. The object of the company is both the culture and manufacture of silk; and for this purpose, they have a plantation of about 300 acres, and suitable buildings. The plantation is being stocked with the *morus multicaulis*, and another variety of Chinese mulberry, which, on many accounts, they think preferable. Their manufacture, at present, is principally confined to sewing silk, the quality of which is said, by competent judges, to be equal to the best Italian. The company have also imported large quantities of mulberry trees, with which they are stocking their own plantation, and in part supplying the great demand for that article.

The Massachusetts Silk Company has a capital of \$150,000, and a plantation of 160 acres at Framingham. They have now growing 78,000 Italian, and 7,360 Chinese mulberry trees, besides a seed bed of two acres. There are also in this State the Boston Silk Company, the Roxbury Silk Company, and the Newburyport Silk Company, all with large capitals. Besides these incorporated companies, individuals are engaging in the business, in most parts of the State, with very promising prospects.

In Rhode Island, where the manufacture of cotton has been long and profitably prosecuted, the manufacture of silk is commencing. There is one incorporated company by the name of the Valentine or Rhode Island Silk Company. This company has a capital of \$100,000. The factory is in Providence and the plantation in the neighborhood. It has been in operation some time, and

has manufactured some very beautiful and durable articles.

In Connecticut, silk has been grown in considerable quantities for 50 or 60 years, particularly in the counties of Windham and Tolland. As an encouragement to the silk-grower, the State pays a bounty of one dollar on every hundred Italian or Chinese mulberry trees, set out at such distances from each other as will best favor their full growth and the collection of their leaves, and cultivated until they are five years old. The State also pays a bounty of fifty cents on every pound of silk reeled on an improved reel.

There are two incorporated companies in the State—the Mansfield and the Connecticut Silk Manufacturing Companies. The former is located at Mansfield, and has a capital of \$20,000; the latter at Hartford, with a capital of 80,000.—Both these companies have been beneficiaries of a bank. The business of the latter has hitherto been principally limited to the manufacture of Tuscan straw for ladies' bonnets; but it has lately commenced the manufacture of sewing silk in large quantities of a good quality. There is a silk-factory at Lisbon, which has been in operation several years, and is said to be doing a good business.

Individuals, also, in all parts of the State, are engaging in the culture; several of whom are planting large tracts with the mulberry. The Messrs. Cheney, at Manchester, have been engaged the past season in cultivating the *morus multicaulis*, and have been very successful. They intend stocking a large plantation of this variety of the mulberry, and prosecuting the growth of silk, and its manufacture into sewing silk and fabrics on an extensive scale. Messrs. Brown and Lee, of East Granby, have also extensive grounds devoted to the cultivation of the tree. They sowed, the last season, 120 pounds of Italian mulberry seed, and have several millions of seedlings. They are also extensively engaged in the cultivation of the *morus multicaulis*. Their ultimate object is to unite the manufacture with the growth of silk. There are, also, extensive nurseries at Hartford, Suffield, Farmington, Litchfield, New London, Stonington, Durham, New Haven, and many other towns. Mr. Ephraim Cheeseborough, of New London, has invented a simple plan for making cocoons, which promises to be an improvement on the old method. Mr. Isaac G. Botsford, of Roxbury, has invented a machine for the manufacture of organzine, tram, and sewing silk, which is said to be an important improvement in silk machinery. The machine of Mr. Adam Brooks of South Scituate, which has been for some time in use, proves to be a valuable invention.

Middle States.

The subject of encouraging the culture of silk has been under consideration in New York for some time, and it is expected it will be given at the present session. Several Silk companies have been incorporated; among which are, the Troy, the Poughkeepsie, the New-York, and the Albany Silk-Growers companies. These companies have large capitals; but of their present condition I am not advised. Though the business is engaging the attention of gentlemen in most of the counties, yet my information is limited principally

to those of Steuben, Broome, Lewis, Orleans, Monroe, Onondaga, and Suffolk. From these counties communications have been received.—In the county of Steuben there are about 20,000 Italian mulberry trees of five years' growth and under, and 1,200 Chinese, one and two years old. About twenty persons have commenced the business; one acre is devoted, and ten more in preparation.

In Broome county, little has as yet been done; but my correspondent says:—"I have no doubt that in three years there will be 100,000 *morus multicaulis* trees in the county." In Lewis county there are a few trees of both kinds, and one gentleman has 8,000 or 9,000 cuttings of the Chinese, ready for setting the coming spring. He says: "people are beginning to awake to the business, and believe it will flourish here." In Orleans county, there are about 600 of the Chinese, and 50,000 of the Italian, now growing.—Seven pounds of sewing silk have been made, and seven or eight persons engaged in the business on a small scale. It is supposed \$200,000 will be invested in the business in five years. In Monroe county, there are large nurseries at Rochester, Greece, and several other places. In the town of Sweden, there are 4,125 Chinese mulberry trees of five years old and under, and about 100,000 Italian; five acres of land are already planted, and fifteen more in a state of preparation. In Onondaga county, there are many of the Italian. On Shelter island, there are 6000 Chinese, and 100,000 Italian, and 7 acres of land are in preparation. In Southampton, on Long Island, there are 50,000 Italian and a few Chinese; 2 acres of land are stocked, and five preparing. A beginning has also been made in Montgomery county, and some beautiful sewing silk made.

The foregoing is a very imperfect view of the present state of the business in the great State of New York. In all parts of the State, individuals are engaging with spirit, and there is no doubt New York will become a great silk-growing district.

In New Jersey, several companies have been incorporated; among which are the New Jersey Silk Manufacturing Company, with a capital not exceeding \$30,000, and the Monmouth Silk Company. Several other companies are formed or projected, and enterprising individuals in many parts of the State are cultivating the mulberry, and, in some towns, small quantities of silk have been found well adapted to the business.

A number of companies have been formed in Pennsylvania, under a general law of the State for the encouragement of the culture of silk.

The Beaver Silk Company, at Beaver Falls, in Western Pennsylvania, is about commencing operations under very favorable circumstances.—There is also a company in Chester county and another recently formed in Philadelphia. At Economy, the Harmony Society have commenced the growth and manufacture of silk. They have about 10,000 Italian trees, and 453 Chinese, of various ages. They have manufactured sewing silk, vestings, cravats, &c., which are beautiful. Hundreds of farmers, mechanics, and professional men are also engaging in the business.

In Delaware and Maryland the subject is attracting much attention. Several companies have been formed, and individuals are commencing

plantations. A company has been incorporated in Queen Anne county, with a capital of \$50,000, for the purpose of growing Silk. The Talbot County Silk Company has also been incorporated.

Southern States.

In the Southern, as well as in the Northern and Middle States, much interest is felt in the subject, and much is doing to introduce it to the attention of planters. In Virginia, they are proposing to devote their worn-out tobacco land to the culture of silk, in the hope of checking the tide of emigration, which is setting West, and threatening to depopulate the country. There are several silk companies, and many patriotic individuals are making experiments. The Virginia Silk Company has been incorporated with a capital of \$10,000—a very liberal charter. The Potomac Silk and Agricultural Company, with a capital of \$5,000, and liberty to extend it to \$50,000, has also been incorporated. The company have purchased 400 acres of land, and planted about 2,000 Chinese mulberry trees. Mr. J. B. Gray, near Fredericksburg, has also a large number of Chinese trees in a very flourishing condition.

The accounts I have received from North Carolina, are of the most cheering character; they represent the soil and climate to be remarkably favorable to the growth of the tree and the rearing of the worm, and the planters are disposed to give the subject a fair trial. The same is substantially true as respects South Carolina and Georgia. Experiments have been made, the results of which have satisfied many of the planters that the young, aged, and infirm portion of their slaves can be profitably employed in the culture of silk; and there is little doubt that in a short time many of them will make silk as well as a cotton crop.

In Florida and Alabama the tree grows luxuriantly, and produces an abundance of foliage. Experiments in rearing the worm have, also, been attended with favorable results; and a portion of the inhabitants are convinced that silk will be the most profitable crop they can make. At Pensacola and Mobile are large numbers of mulberry trees; and arrangements are making by several gentlemen to commence the business. At the latter place, Chester Root, Esq. is preparing for a large plantation. The black mulberry is indigenous, and its foliage has been found to make as good silk as that of the Italian or Chinese. It is also supposed the sterile lands of West Florida will become valuable on account of their adaptation to the production of silk.

Western States.

The soil and climate of the Western States have also been found to be peculiarly adapted to the silk culture; and many farmers and others are turning their attention to it. In Ohio, there are a number of companies incorporated, with large capitals, and under the direction of skilful managers. The Ohio Silk Company, at Columbus, has a large plantation on the rich bottoms of the Scioto, which is fast stocking with both kinds of the mulberry: 30,000 Italian, 4 years old, and a large number of the Chinese, have been set. The company propose to extend their plantation of Italian, to at least one hundred acres, with 1,000 trees to the acre, and an equal num-

ber of acres with the Chinese. It is also their intention to add about 50 acres in hedges of both kinds.

A company has also been formed at Mount Pleasant, in Jefferson county, with a capital of \$50,000. The Massillon Manufacturing Company have had their capital extended to \$600,000, and are determined to engage largely in the culture of silk. Several other companies have been formed, and many more have petitions before the Legislature for acts of incorporation. In the vicinity of Canton, Stark county, 70 families are said to be engaged in making silk; and in Knox, Cuyahoga, Jefferson, Belmont, Washington, Brown, Hamilton, Montgomery, Highland, and several other counties, many individuals are beginning. Several petitions are now before the Legislature praying for public encouragement; and it is expected something liberal will be done.

In Kentucky, a company has been incorporated under the name of the "Campbell County Silk Culture and Manufacturing Company," and has selected a favorable location opposite Cincinnati. The subject is new in this State, but it is attracting attention, as is apparent from the following extract of a letter from a gentleman near Lexington: "The first talk of silk-raising in this country was about a year and a half since, when a friend sent me the first copy of the Silk Culturist. So great has been the increase of public sentiment, that there appear but few of the rich farmers but who are talking of it as a source of employment for their weak force. There are a great many Italian mulberries of one year's growth. I have near 100,000 in a nursery of five acres; and there is the produce of four pounds and a half of seed more, raised by five of my immediate neighbors; all of which will be planted out in the spring in hedge rows. I calculate there will be one hundred acres planted. The six that are now making experiments are all rich, and can bring into the field one hundred and fifty hands of their own, and as much land as is necessary: and our whole energy will be turned to it."

In Indiana, large quantities of seed have been sown, and a spirit of inquiry has been awakened, particularly among the Quakers at Richmond. A gentleman of that place says: "There has nothing but the Italian been grown as yet, of which there is, to my knowledge, only about 30,000 trees, which are all seedlings. There will be some of the real Chinese, and also of the *multicaulis*, cultivated, though to a limited extent. The business cannot flourish with us till our trees have grown, though our woods abound with the black mulberry." There is a large nursery of both kinds at Madison, and the State will be gradually furnished with trees.

In Illinois, Michigan, Missouri and Tennessee, small beginnings have been made, and the congeniality of the soil and climate cannot, ultimately, fail of making them great silk-growing States.

In looking at the vast amount of silk annually imported and consumed in this country, and the facilities it furnishes for its production, the conviction irresistibly forces itself upon the mind, that our national interest, independence, and respectability, loudly call for such legislative aid and encouragement, as shall stimulate to activity and perseverance, the efforts which are making to introduce its culture as a common branch of ru-

ral economy. Hitherto, the work has been carried forward by individual exertions; and this is unquestionably the true method, so far as individual interest is concerned. But the nation has a great interest involved in it; and it is its duty to foster it in such a manner as will afford it protection and encouragement. The public and individuals having a common interest in the object, may by an energetic co-operation in effort, secure its benefits to both.

The efforts which have been made by individuals, and the success which has thus far attended them, seem to point out the course which should be adopted by Congress. Enough has been done already to enlighten the public, so far as its practicability and profit are concerned; and nothing more is wanting to induce thousands of the enterprising and industrious to engage in it, but a thorough knowledge of its details. Could a general diffusion of practical knowledge on the subject of cultivating the tree and rearing the worm, be effected, I have no doubt the United States would finally become one of the greatest silk-growing countries in the world. It is for the committee to recommend the measures which ought to be taken by Congress to promote this great object; and in their hands I leave it with one suggestion; if a small and cheap manual could be extensively circulated at the public expense, I have no doubt it would be well received, and, at the same time, be the best method to accomplish the great object in view.

I am, sir, very respectfully,

Your obedient servant,

ANDREW T. JUDSON.

Hon. J. Q. ADAMS,

Chairman Committee on Manufactures.

[From the Germantown Telegraph.]

APPLE AND PEACH TREES, &c.

Mr. Editor—In reading the late numbers of your valuable paper, I have observed that a portion of it is appropriated for agricultural information. The improvements that are constantly being made in farming operations, the many valuable implements, machines and useful plants, that are from time to time introduced amongst us, deserve to be noticed in such a paper as yours, having its circulation in an agricultural community. The advantages, to be derived from such a means of concentrating information, are manifest. Being myself a practical farmer, and finding it useful to make experiments, I will, with your leave, take advantage of your invitation, and communicate occasionally, such hints as I may think not to be generally known, and may be calculated to be useful.

In a late number I observed the complaints of a correspondent on rearing of Apple Trees, and the difficulty of guarding them against the attacks of a worm that eats out the heart of the tree. As I planted a young orchard about seven years ago, I have experienced all the embarrassments and mortification of your correspondent, and of about 7 acres of ground planted in the usual way, there are not now standing more than twenty trees of those set out. I was industrious during September, October and November of each year, with the knife and wire. I had the earth removed from around the stem in the fall, and then had them

some seasons limed and whitewashed, and others abundantly manured; and indeed did all that my ingenuity, as well as that of my neighbors suggested, to preserve them; but in spite of all my exertions my trees died.

At length, my patience being exhausted, and determined to abandon what remained of my orchard to its fate, if my only remaining experiment should fail, I had recourse to anthracite coal ashes, which I deposited in the spring upon the surface of the ground, around the stems of some of the trees. During the following summer, I observed that these appeared to be remarkably thrifty. They had a smooth, healthy bark, and made much wood. In the fall, the trees were carefully examined. Those about which there was no ashes, exhibited their usual appearance, had an accustomed supply of worms, and had not grown much. On the contrary, there was not one of those around which the ashes had been placed, that had a worm at the root. I found several worms however at the distance of about 4 feet from the ground, which were easily detected and removed. Since that time (3 years ago,) I have found my trees to be steadily improving, and the like results have uniformly been produced from the use of the ashes. Some of the trees had a heavy load of fruit last year, and now look remarkably promising.

I have also used anthracite coal ashes upon my peach trees, with a like result; and my trees last summer, although growing in a heavy clay soil, bore for the first time, an abundant load of fruit; and their appearance now, would not be discreditable to the best peach orchards of New Jersey. I must do the peach tree worm the justice to say, however, that in a few instances, I found him at his post, but there were many trees; a very large majority, where he was not to be seen. Many peach trees are in my garden, and in the cultivation of it the ashes may have been mixed with the earth thereabouts, so as to destroy its repulsive property, but whether it contains this property or not, it will be found a most valuable manure for trees.

From the observations I have made, I am satisfied, that the absence of worms from so many trees, may be fairly attributed to the use of the coal ashes, and I therefore confidently recommend it to those who feel an interest in the cultivation of these delicious fruits.

PENN.

[From the Germantown Telegraph.]

INDIAN CORN.

Mr. Freas—I am induced by your article in this day's paper, to say a few words on this subject. As far as my experience has gone, I am decidedly of opinion that it is much better to plant corn in rows, and in single plants, than in hills of three or four plants in a hill. I planted near an acre last year, in double rows 6 feet apart; that is, I put two rows together at a foot distance, and the plants at a foot apart in the row. My chickens took at least one-third of it before I discovered it, and I had to replant about three weeks afterwards, which was a great drawback in such a cold season as the last was. The land is but middling quality, and was but lightly manured by ploughing it down. I had no sod to plough in, as it was part in corn the year before. I horse hoed once and ploughed and earthed it up once only; and

then discovered my error in putting two rows together; having had to throw the earth into the space between the rows with the spade. However, it grew finely; and an old farmer, who saw it many times, said it was the best he had seen in Germantown township. Being of the gourd seed kind, it had not heat enough to ripen it well; but this was nothing against the principle of planting in rows, which I believe is the best.

If I have time I will send you further information on this subject for your next paper; but at present shall confine myself to giving our farming friends a hint, how to preserve their crops of corn from the destruction of the crows and blackbirds; and I should suppose chickens also. A friend told me of it last year, and he has tried it, and found it to answer. It is to dissolve a quantity of copperas in water, and to soak the corn in it before planting. It will turn the corn black, but will not injure its vegetative powers. I do not know what quantity of copperas he put to a certain quantity of water, nor how long he suffered it to remain in soak; but as he sees your paper regularly, I will conclude by requesting him, thus publicly, to give us all the information he is possessed of on this subject, and have no doubt he will take pleasure in doing so.

I am yours, respectfully,

A. G. F.

Near Germantown, 19th April, 1837.

P. S. Please to allow me to express my thanks to your correspondent "Penn," for his communication about Apple Trees. I have planted a few in the mode he recommended; and have been informed by an old nurseryman, that soot will protect the tree from the attacks of these grubs.

The Drought.—We have had no rain for a month, or thereabouts, and the earth around and about us, is as "dry as a powder-horn." The promise for a crop of wheat in this quarter is peculiarly gloomy, but we trust that when we shall have had a good rain, and when the weather shall assume a spring temperature—as yet we have had nothing but winter—the prospect may improve; if it does not, our farmers—and community as dependent upon them—will find themselves compelled to put up with half-allowance in many things.

P. S. Since the above paragraph was written, we have had a most delightful winter snow! Early on Sunday morning, after a slight shower of rain, snow-flakes began to descend rapidly, and continued falling about eight hours, until, notwithstanding the ground had been made wet by the rain, the earth was covered to the depth of six or eight inches.—*Winchester Virginian.*

Import of Foreign Wheat.—The New York Courier and Enquirer contains a detailed statement of the quantity of foreign Wheat imported into the city of New York during the month of October, 1835, and from 1st January, 1836, to 19th April, 1837. From this it appears, that the number of bushels imported in October, 1835, was

	18,200
During the year 1836,	493,100
From 1st Jan. to 19th April, 1837,	857,000

Making a total of 1,368,300
The import of foreign Rye during the same periods was also very heavy.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 50	1 75
CATTLE, on the hoof,	100lbs	8 00	10 00
CORN, yellow	bushel	90	—
White,	"	90	—
COTTON, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	—	—
Louisiana 20a21-Alabama	"	—	—
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	8 75	8 50
SuperHow. st. in good de'd	"	9 00	—
" wagon price,	"	8 25	—
City Mills, super,	"	8 00	8 25
Do extra,	"	8 25	—
Susquehanna,	"	9 00	—
Rye,	"	6 50	6 75
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	—	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	16 00	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 00	7 75
Slaughtered,	"	—	—
HORS—first sort,	pound.	17	—
second,	"	13	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	43	45
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 87	—
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	90	—
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 00	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf, ..	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
*WHEAT, white,	bushel.	—	—
Red, best,	"	1 50	—
fair to good 100a130, inferior	"	—	—
WHISKEY, 1st pf. in bbls.}	gallon.	34	37
" in hhds.}	"	—	no sale
" wagon price,	"	—	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	2 00	—
To Wheeling, ..	"	2 25	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do,	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do. exclusive of the wheels, shafts and axle, ..	60
For applying the machinery to a common cart ..	45
For the machinery alone	40
Including the patent fee in each case. ..	28 3t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured, ..	pound.	13	—
Shoulders, do.	"	11½	12
Middlings, do.	"	do	do
Assorted, country,	"	7½	7½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,	"	23	28
CIDER,	barrel.	—	—
CALVES, three to six weeks old, ..	each.	5 00	7 00
Cows, new milch,	"	30 00	40 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	1 81	1 87
CHOP RYE,	"	2 00	—
Eggs,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna, ..	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 50	—
Mackerel, No. 1, —, —, —, No. 2	"	8 50	9 50
No. 3,	"	—	5 50
Cod, salted,	cwt.	—	4 00
LARD,	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	VIRGINIA.
Branch at Baltimore,	par	Farmers Bank of Virgin. 4a4½
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	1a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, ..	2	Danville,
Do. payable at Easton, ...	2	Bank of the Valley, ...
Salisbury, 2 per ct. dis.	2	Branch at Romney, ...
Cumberland,	3	Do. Charlestown, ...
Millington,	do	Do. Leesburg, ...
DISTRICT.		Wheeling Banks, ...
Washington,	1a	Ohio Banks, generally 6a7
Georgetown,	1a	New Jersey Banks gen. 5
Alexandria,	1a	New York City,
PENNSYLVANIA.		New York State, ... 6a7
Philadelphia,	1a	Massachusetts, ... 3a3½
Chambersburg,	3	Connecticut, ... 3a3½
Gettysburg,	do	New Hampshire, ... 3a3½
Pittsburg,	3½	Maine, ... 3a3½
York,	2½	Rhode Island, ... 3a3½
Other Pennsylvania Bks. 4		North Carolina, ... 8a10
Delaware [under \$5], ...	6	South Carolina, ... 10a12
do [over \$5], ...	3	Georgia, ... do
Michigan Banks,	10	New Orleans, ... 15
Canadian do,	10	

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the county. It is remarkably healthy and handsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; CASH will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to

EDWARD P. ROBERTS,
Baltimore, Md.

DURHAMS AND DURHAM GRADES.

I have for sale a beautiful full-bred Durham bull, 5 years old, proceeding from the finest of the improved Durhams; a two year old do. 15-16ths blood, the AL-LOR being Devon and coming from Flora, that Queen of cows, raised by the Hon. Charles A. Barnitz, which, when fresh, gives 20 pounds of butter a week.

ALSO 8 half-bred milch cows, mostly springing at this time: these are by Col. Powell's improved Durham bull Monk, out of capital Pennsylvania cows, and warranted to give from 16 to 20 quarts of milk a day when fresh.

All applications must be post paid. Address

EDWARD P. ROBERTS,
Baltimore, Md.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each,

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER AND GARDENER, North-east corner of Baltimore and Charles streets, Baltimore, Md. April 18, 1837.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t. Baltimore, Md.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to

EDW. P. ROBERTS,
ap 25 Baltimore, Md.

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 14 hands and half inch, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to

EDWARD P. ROBERTS,
Ap. 18. 4t. Baltimore, Md.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

CONTENTS OF THIS NUMBER.

Crop prospects—a superior Cow—on the culture of Peas—spring wheat—letter of Mr. Bement—Mr. Adams' report to the House of Representatives of the U. S. on the culture of silk in America—on rearing Apple and Peach trees—on the culture of Indian corn—the drought—importation of wheat—advertisements—prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 3.

BALTIMORE, MD. MAY 16, 1837.

Vol. IV.

— THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 16, 1837.

CORN.

If there be any who may have put in their corn without being able to manure their ground, from want of time, who may have manure at command, we would advise them still to give it a dressing, either before the grain comes up, or just after it has done so.

Those who may live upon tide water, where the sea-weed washes ashore, have a certain resource in that article to insure a good yield of corn, and by taking a little trouble may add 25 per cent. to their product: in ploughing their corn the first time, let the furrow be turned from the stalks on either side; let the cart follow the plough with the sea-weed, put in a shovel full of it around the stalks, in the furrow; then let the plough return the soil, covering up the sea-weed, and they may rest assured the happiest results will crown their labors.

Those who have not this resource, have an equal fertilizer in the mould and leaves from the woods, which, if applied in the same way, would act equally efficient. So also would well rotted manure of any kind.

But should there be any who are so situated, as not to be able to encounter this trouble, we would advise them to a less laborious course.— Let them mix ten bushels of spent ashes with one of plaster, and cast a common sized kitchen ladleful upon each hill soon after the corn is up.

If there should be any who may not be able to obtain the ashes, an ordinarily sized table-spoonful of plaster to each hill, will act as a charm if put around and on the plants, when they first come up.

BEETS AND PARSNIPS.

These roots may be sown up to the last of this

month in good loamy ground, well manured, with a certainty of a reasonably fair crop, and we most earnestly recommend to every one, who would wish to have a plentifully supplied winter dairy, to embrace the opportunity of putting them in.

RUTA BAGA.

We are particularly desirous to see this valuable root gaining upon the favor of agriculturists, and therefore, would remind them, that they should bestir themselves, so as to get their ground ready for drilling them in by the 10th or 15th of June.

MANUFACTURE OF BEET SUGAR IN FRANCE.

The French Minister of Finances in his report recently made, states the manufacture of beet sugar in France to be as follows:

In 1835—668,936,762 lbs.

" 1836—1,012,770,589 lbs.

That the value of the raw sugar from the harvest of 1835, was 30,349,340 francs. That of 1836, 48,968,805 francs.

The number of manufactories now at work in the making of beet sugar is 512: besides these there are 39 being erected.

By this exhibit it will be seen, that public confidence in this branch of agricultural industry, is steadily on the increase in France; which fact should inspire those engaged in the pursuits of husbandry in America, with a like confidence; and we sincerely hope, that every farmer and planter will feel himself justified in putting in more or less of the seed, with a view of ultimately adding this to the other branches of his culture.— When so many disasters have followed the exertions of the wheat-grower for the last four years, —when the price of cotton has so greatly fallen, —when its sales have been so precarious—and when so little profit has recently ensued to the tobacco planters, surely each and all of them should look around them with a view of embracing other pursuits; and to us it appears clear, that none which promises surer prospects of success and profit could be desired than those of the beet and mulberry culture. Blessed with soil and climate both happily adapted to their growth, how

easy a matter will it be, for any one so disposed to embrace either, or both branches, upon a small scale, without materially affecting those which now form the staple articles of their growth.

EDITOR'S CORRESPONDENCE.

If there be any thing which goes more directly to the heart of the conductor of a public journal, than such evidences of the approbation of his subscribers than the following extracts furnish, we know it not:

Extract from a letter from a subscriber living near Beltsville, Prince George's county, Md., dated

"BELTSVILLE, May 8, 1837.

"I have been endeavoring to get you some subscribers to your paper, and have the promise from several."

Extract from another letter, dated

"YORK, Pa. May 9, 1837.

"Enclosed you will find \$5 to pay subscription to your valuable Farmer and Gardener. Two dollars and fifty cents for Mr. ———, and Two dollars and fifty cents for ourselves. We have made exertions to get you some subscribers, but have thus far only succeeded in getting one."

Extract from another, dated

"CHESTERFIELD COURT HOUSE, S. C. }
April 25, 1837. }

"Please send the Farmer and Gardener to Messrs. — & —, Gold Mine Post-Office, Chesterfield District, S. C. I am endeavoring to procure subscribers to the Farmer and Gardener, and hope to furnish several in a short time. It would give me great pleasure to see it in the hands of every farmer in this community; it would probably be the means of rousing them from the lamentable state of apathy to which they have fallen.

"Since writing this letter, my brother has signified his wish to take your paper."

From a female reader in the city of New York, we have the following, dated May 5, 1837.

"I hope the refreshing dews and gentle showers, will ever be bestowed with a liberal hand on the highly cultivated Farmer and Gardener, which has afforded me so often such sweet delight."

We do not often obtrude our affairs upon our readers; but gratitude to the generous motives which influence the writers of the above extracts, induce us to do so upon this occasion, and while

we return to each our unfeigned thanks, we trust their good example will have a contagious effect, and that we shall soon have to announce, that we have, indeed, been met in the true spirit of reciprocity.

The article on the present and past condition of British Agriculture, which will be found in another column, is of profound concern, and will afford matter for much reflection to every thinking reader. We, therefore, commend it to the careful perusal of all.

THE GROWING CROPS.

The last Fredericktown Times, published in Frederick County, Md., in one of our most fertile counties, hitherto distinguished for her heavy products of wheat and rye, has the following paragraph:

"It is an unpleasant task for us to record the fact, that the prospects of the crops of wheat and rye never were more unfavorable at this season of the year, than they are in this county at the present time. Many of our farmers have ploughed up their fields of wheat and are now planting them in corn. To prevent flooding the market with that useful grain, would it not be advisable for our agricultural friends to appropriate a portion of their ground to the cultivation of Buckwheat or any other article from the sale of which they may derive the means of comfortable support?—We drop this hint for the benefit of the grain-growing community, in whose welfare and prosperity we feel a deep and lively interest."

Although we do not join with the editors of the *Times*, in the fear of the country being "flooded" with corn, we agree most heartily in their recommendation, that a portion of the ground should be appropriated to the cultivation of Buckwheat. If planted in grounds capable of bringing wheat, there can be no doubt that it would prove a profitable crop, for from the universal favoritism in which its flour is held for cakes for the breakfast table, it is certain that it would command ready sale and good prices.

The Poughkeepsie (N. Y.) Telegraph has this paragraph:

Crops in Orange county.—We regret to learn from the Goshen Independent Republican, that owing to the unfavorable appearance of the wheat and rye in that county to yield any crop, many farmers are ploughing them up in order to prepare for summer sowing.

Potatoes.—In Prussia the Potatoe is cultivated with peculiar success;—as the stalk grows, the earth is heaped up, leaving only three leaves at the top; roots are thus greatly increased, and the produce is said to be astonishing.

THE PRESSURE.

Knowing that our subscribers have a deep interest in whatever concerns the currency of the country, we annex the statements which follow, of the suspension of specie payments by a number of the banks of the Atlantic cities; by which it will be seen that the suspension has been general in New York, Philadelphia, and Baltimore, with but a solitary exception. The measure we deem a wise one, and believe that had it been adopted two weeks earlier in Baltimore, no commercial house of importance would have been compelled to suspend payments; for it is universally admitted that all of those which were forced by circumstances to do so in this city are perfectly solvent—nay, that most of them have large surpluses, after making most liberal allowances for losses. So far as we have been able to gather public sentiment upon the subject, it is in favor of the measure of precaution adopted by the banks, and judging from the changed aspect of the countenances of business men, we should say much relief will be thereby afforded. When we say that our opinion is, that all of our banks are in a sound condition, we but speak the undissembled sentiments of our heart. Persons at a distance, holding the paper of our banks, need apprehend no danger, and we earnestly advise them to make no sacrifices to get rid of them, as they are, and will be able to meet all their engagements with the utmost fidelity.

[From the Baltimore American of May 13.]

Yesterday the suspension of specie payments on the part of the banks of this city took effect. The propriety, or more properly speaking, the absolute necessity of the measure was so clearly apparent, after the occurrences which had taken place in New York and Philadelphia, that it has met with general acquiescence. Perfect stillness pervaded the banks yesterday, in comparison with the bustle which attended the payment of the numerous calls for specie on the preceding day.

The notes of the private banking house of J. I. Cohen, jr. and Brothers were presented yesterday at their counter quite freely, and were promptly paid in specie.

The notes of our banks, although not redeemable in specie, were yesterday received as usual in deposit at the different banks, and by all persons in business.

The sudden change in the circulating medium has brought with it a difficulty on the score of small change, so indispensable in all the smaller business transactions of life, which should be remedied as soon as practicable. It is generally known that the banks are prohibited by law from issuing notes of a denomination less than \$5, consequently we must look to some other source for this description of circulating medium. The great desideratum in selecting the mode of supplying the existing deficiency is that it shall be entitled to credit and be uniform, so as to prevent the possibility of loss or the facility of imposition.

The course pursued in Philadelphia strikes us as peculiarly entitled to approbation in regard to both of these points. The councils of that city have passed an ordinance authorising the issue of certificates of loan, to the amount of \$150,000, embracing 25 cents, 50 cents, and 1, 3, 6, 7 and 9 dollars, which are to be received in payment of taxes, and will answer all the purposes of a circulating medium. The advantages of this course are so evident as not to admit of argument, inasmuch as the faith of the city will stand pledged for the redemption of the notes, whilst being issued by the same authority, they will be uniform in their appearance, and so executed as to prevent their being easily counterfeited.

Especial care should be taken by our citizens to discountenance issues of small bills by irresponsible individuals, the mischievous consequences of which are still in the recollection of many of our readers, and go very far to prove the propriety of the Philadelphia plan. We presume that there is little doubt about the power possessed by the corporation of this city to issue certificates of loan, whatever difficulty might attend an attempt to put in circulation any document in the nature of a bank bill. These certificates might be procured from the Register of the city or some other officer appointed for the purpose, in exchange for bank bills, which would be an additional guarantee as to their value. The difficulties already experienced in the transaction of business demonstrate the necessity of prompt action in the premises, and it is hoped that the City Council, which will convene on Monday next, as supposed, with a view to make some arrangement in this matter, will at once furnish the city with a circulation that may supply the place of small coin. Any amount of small change that may still remain with the banks will come advantageously into play at the time of resuming specie payments, which it is hoped is not very far distant.

Since the foregoing article was written we have been informed, from a most respectable source, that satisfactory arrangements for a supply of small change will be promptly made.

SPECIE PAYMENT SUSPENSIONS.

The course which has been taken by all the banks of New York, Philadelphia and Baltimore, of suspending the payment of specie for their liabilities, will in all probability be followed by a large majority of the banks throughout the union.

It appears that when the news of the suspension in New York reached New Haven, all the banks in that place except the City Bank, suspended specie payment. The City Bank has for some time been under a process of examination by a committee of the legislature, and having reduced its business and reinforced its vaults, has determined to pay the remainder of its debts in specie.

Along the North River the banks generally suspended specie payments as soon as the intelligence from New York reached them.

In Wilmington, Del., the same course has also been adopted.

U. S. BANK.—This institution, it appears, suspended specie payments simultaneously with the other banks in Philadelphia. The U. S. Gazette, speaking of the necessity of the general suspension, says:—

"But for this resolution, our city would have

been drained of its specie within forty-eight hours, to answer the demands, and accommodate the Brokers of New York and Baltimore. A large portion of the benefit of the measure would have been lost if any bank had declined to join with the rest. Great credit is due to the United States Bank for her accord, by which step, Mr. Biddle has surrendered his reluctant consent, in obedience to the obvious interest of the community, without impairing, in general opinion, the stability or fame of his institution."

The Bank of the Metropolis—the Deposit Bank at Washington—forms an exception to the general proceeding, and thus announces its intention to continue specie payments:

NOTICE.

Bank of Metropolis, May 12, 1837.

Notwithstanding the information which has reached Washington, of the suspension of specie payments by the Banks of New York, as well as some of the Banks of Philadelphia and Baltimore, the President and Directors of the Bank of the Metropolis, confident in their ability to fulfil all the engagements and liabilities of the Bank, have determined to continue specie payments. Satisfied of the strength of the Bank of the Metropolis to sustain its credit, the President, Directors, and Cashier, have determined to pledge, and they will, individually and collectively, pledge, their private fortunes for all just claims against the Institution.

By order of the Board,
Test, JOHN P. VAN NESS *President.*
GEO. THOMAS, *Cashier.*

The following banks in addition to the above, have suspended specie payments.

At Albany, and other places in the interior of New York.

Of the state of New Jersey,

Of Providence, Rhode Island.

Of Hartford, Connecticut.

Of Alexandria, D. C.

Patriotic Bank of Washington, D. C.

Farmers' Bank of Maryland, Annapolis.

Frederick County (Md.) Banks.

Most of the Banks in Massachusetts.

The Morris County Bank, at Morristown, N. J. has stopped payment.

It is stated in the New York American that some of the claimants under the French treaty made demands on the Bank of America on Wednesday, for the payment of their claims in gold. The demand was refused, when it was formally made and protested, and sent on for recovery to Washington. The indemnity money was sent from France in gold.

[From the Charleston Mercury.]

MANAGEMENT OF SLAVES.

We have read with interest and instruction, a Pamphlet on the Management of Slaves, by the Hon. WHITEMARSH B. SEABROOK, to whose public spirited labors our Agricultural community, and especially the Sea Island Planters, are indebted for

so much judicious speculation and practical instruction.

The work begins with a brief vindication of Slavery; and in the course of its direction for the management of Slaves, examines several recently published projects for their moral and religious education.

The following Extract is from the Introductory remarks:

"The value of our slave property is not justly appreciated. To their owners, our slaves yield two distinct interests; the one annual, or that which arises from their labor; the other, a contingent or prospective interest, the issue of the females. To the Southern States, and I may properly add, to the human family, the inhabitants of Africa are absolutely essential. Without their services, as slaves, a large portion of the habitable globe, yielding the richest productions, would at this time be a barren waste. The negro never has, and, from causes inseparable from his nature, never can labor profitably as a freeman. History, ancient and modern, evinces the truth of this position. Our own country furnishes abundant evidence on the subject. St. Domingo, as a colony, supplied Europe with the fruits of slave industry. Emancipation has nearly destroyed the ability of that fertile Island to provide even for its own wants. Who but the black man, controlled by his master, can toil successfully under the action of a southern sun? What member of the Confederacy can vie with South Carolina, or any other slave-holding State, in the value of her productions? Strike from existence our Negro population, and how inconsiderable would be the revenue of the Union arising from imports. From what source would then be drawn the many millions that are annually appropriated by a prodigious Congress? If slavery had ceased simultaneously in every State, at the termination of our late war with Great Britain, when the General Government owed about 120 millions of Dollars, in what time would the debt have been extinguished? These and other questions of similar import, it would be difficult for the most zealous abolitionist to answer. The worth of our slaves, and the important station which their owners necessarily occupy, may be illustrated by another consideration. An increase of wealth on the part of any citizen obviously augments the aggregate wealth of the State, but it cannot affect that State politically.—An addition of \$1,000,000 to the private fortune of Daniel Webster, would not give to Massachusetts more than she now possesses in the Federal Councils. On the other hand, every increase of slave property in South Carolina, is a fraction thrown into the scale by which her representation in Congress is determined. It is evident, therefore, that the slaveholder, as a member of the great American family, holds an elevated rank, and one of high responsibility. An injudicious application of his authority might beggar him and his neighbours; nay, involve the whole community in irretrievable ruin. And what is of far weightier consequence, omission or neglect to improve the moral condition of his people, is an offence for which hereafter there may be no forgiveness. It ought hence to be borne in perpetual remembrance, that we of the South have duties to discharge, which no other citizen is liable to perform."

[From the Boston Journal.]

Important Invention.—A gentleman of this city, has recently invented a machine for "facing and smoothing granite," and other kinds of stone, that bids fair to be of great utility, and to introduce the hammered stone into more general use. It will be of much importance to those interested in the numerous quarries recently opened along the coast of New England, and will greatly assist in preparing for architectural purposes, this beautiful building material.

The machine is simple in its construction, consisting of a very heavy, rapidly revolving cylinder or wheel, placed in an upright frame, with "cutters," placed in the periphery or circumference, and a carriage, on which the stone is placed, to pass under the wheel, and while thus passing, the stone is faced by coming in contact with the cutters. The wheel is very heavy of itself, and is besides driven by the aid of a very powerful and heavy balance wheel, weighing two or three hundred weight at least, and the cutters of steel, weighing several pounds each. The wheel is raised or lowered by means of a screw, to correspond with the thickness of the stone. The stone passes very slow under the cutters, and the wheel revolves with great rapidity. A small degree of play is given to the wheel, that in case the whole surface is not taken down to a proper depth, at a single revolution, it will slide over it, and take it at the next turn of the wheel. The feed of the carriage, (as the mechanics term it) is small, but the amount of labor the machine is capable of performing is very great, in consequence of the continued and rapid motion of the cutters, impelled by steam, water, or other power.

We have seen no labor saving machine of late, that promises so much, or bids fairer to become extensively useful. The proprietors have built a model, with a design of immediately putting it in operation on an extensive sale. In connection with one of the large quarries, we should suppose this an invaluable invention. We believe the tedious, manual process of preparing granite, is soon to cease, and that this or something similar, is the instrument, by which we shall be enabled to compel water, and steam, to perform what has heretofore required exclusively the exertions of human muscle and sinew.

We hope in using this contrivance on an extended scale, it will prove as useful, as it appears in theory and model.

Old Prices.—Looking over some old papers the other day, we fell upon a parcel of bills which were settled in 1817; and were somewhat interested in a comparison between the prices at that day, and those of the present time. In one of the bills a bushel of corn was charged at \$1.92—Coffee 28 cts. a pound, Souchong Tea at 83 cts.; brown Sugar at 14 to 15 cts.; Molasses 58 to 67, and so on. In 1817, we were at peace, to be sure;—but we were smarting under the wounds made by the war of 1812, with its debts and taxes. Labor was no higher then, we believe, than it is now,—and the hard times were made harder by a failure of the corn crop here in 1816.—*Portsmouth Journal.*

The peach trees are said by the Hagerstown Torch Light to have been severely injured.

[From the New York Observer.]
DR. HUMPHREY'S TOUR.
BRITISH AGRICULTURE.

I have spoken already, in general terms, with a little of that enthusiasm, perhaps, which first impressions are apt to beget, of the moral beauties and high cultivation of England, and parts of Scotland. A glance, in July or August, from a few of the thousand eminences which invite your steps, is sufficient to convince you, that the prodigious agricultural resources of the country are developed, with extraordinary industry, skill and success. But these enchanting glimpses, are too rapid and indefinite, to afford any satisfactory data, from which to calculate the gross produce of the island. You want to sit down in your closet, with such statistics, as may be gleaned from the reports of Parliamentary committees, and other authentic documents, and by the help of these, to make out a condensed abstract, embracing all the items, which go to swell the vast aggregate of British agricultural production. For brevity's sake, I shall include what I have to say of the agriculture of Scotland, under the present general head, although, most of the estimates will have more special reference to England and Wales.

It is the opinion of competent judges, that the advances made in the agriculture of Great Britain during the last *seventy* or *eighty* years, are scarcely exceeded by the improvement and extension of its manufactures, within the same period; and that to these advances, no other old settled country furnishes any parallel. That they have been very rapid indeed, the following figures and comparisons abundantly show. In 1760 the total growth of all kinds of grain in England and Wales, was about 120,000,000 of bushels. To this should be added, perhaps 30,000,000, for Scotland—making a grand total of 150,000,000. In 1835, the quantity in both kingdoms, could not have been less than 340,000,000 of bushels. In 1755, the population of the whole island, did not much, if any, exceed 7,500,000. In 1831 it had risen to 16,525,180, being an increase of 9,000,000, or 120 per cent! Now the improvements in agriculture, have more than kept pace with this prodigious increase of demand for its various productions; for it is agreed on all hands, that the 16,500,000, or rather the 17,500,000, (for more than a million have been added since 1831,) are much fuller fed, and on provisions of a far better quality, than the 7,500,000 were, in 1755. Nor is Great Britain indebted at all, at present, to foreign markets for her supplies. Since 1832, she has imported no grain worth mentioning, and till within the last six months, prices have been so exceedingly depressed, as to call forth loud complaints from the whole agricultural interest of the country. England is at this moment, so far from wanting any of our bread-stuffs, if we had them to export, that she has been supplying us all winter liberally from her own granaries, and according to the latest advices, she has still bread enough, and to spare. Again, it is estimated by British writers, of high authority, that the subsistence of 9,000,000 of people costs, in raw produce, not less than £71,000,000, or £8 for each individual per annum. According to this estimate, the annual product of this great branch of national

industry is \$350,000,000 more, at present, than it was in 1755; which is more than twice the value of the whole cotton manufacture of the country, in 1831. Now if it costs \$350,000,000 to feed the increased population of 9,000,000, then to feed the present population of 17,500,000, must cost near \$700,000,000! What an amazing agricultural product, for so small a territory! And yet, it is the opinion of practical men of the highest respectability in England, that the raw produce of the island, might be well nigh doubled, without any greater proportional expense being incurred in its production. That is to say, 35,000,000 of people might draw their subsistence, from that one little speck in the ocean! Now we have a territory, more than fifteen times as large as the island of Great Britain: and what should hinder it, when it comes to be brought under no higher cultivation than some parts of England and Scotland, from sustaining a population of *five* or *six* hundred millions of people? This would give to Virginia something like *thirty* millions—to Illinois and Missouri about the same number, each—to N. York near *twenty-five* millions, and so in proportion to the other states. I am quite aware, that this estimate will be regarded as extremely visionary and incredible, by many of your readers; but not more so, than it would have been thought, in the middle of the last century, that England, Scotland and Wales could ever be made to sustain thirty-five, or even thirty millions.

Among the causes which have more than doubled the agricultural produce of Great Britain, within the period just alluded to, may be mentioned the enclosing of six or seven million of acres of commons and common fields, by which their annual product has been increased, in many cases, more than tenfold—the cultivation of heaths and other waste lands—the redeeming of extensive and inexhaustibly rich fens, from the possession of aquatic birds and animals—the great improvement in agricultural implements—the furrow draining of clay and other cold and stiff soils—the better rotation of the crops—the extensive introduction of turnips and clover—the immense increase of common manure, and the introduction of one at least, whose extraordinary nutritive qualities have but recently been discovered. Next to wheat, the turnip crop, which forty years ago was hardly worth mentioning, is now more valuable than any other, both to landlords and tenants. It is used chiefly in feeding and fattening cattle and sheep; and while immense numbers of both are kept in the most healthy and thriving condition upon this vegetable, one species of which, the Ruta Bag, has lately been introduced and is extensively productive, the lands are greatly enriched and soon prepared for any other crop, which the farmer may find most profitable in his system of rotation. Clover, too, is doing much to enrich the soil of England and Scotland, and to reward the labors of those who moisten it with the sweat of their brows. It is surprising to see, to what extent the light, sandy lands of England have already been redeemed from comparative sterility under this cultivation; and are now sowed with the finest wheat. The process is still going on, and bids fair to proceed as long as there remain any such lands to be reclaimed and enriched. Indeed, who can tell how much the

cultivation of the turnip may ultimately add to the wealth, and help to sustain the population of Britain. According to an estimate which I have lately seen, it is now worth *many millions* sterling, per annum, to the single county of Norfolk. Carrots, also, are found to be a very profitable crop in some parts of England, and the farmers are turning their attention to the cultivation of this very nutritious esculent, with increasing interest and advantage.

Among the several kinds of manure which have long been in high repute, lime and marls are inexhaustible; particularly the former, which the low price of coal brings at a cheap rate. On some soils, and near the kilns, it is used in great quantities. I have seen fields covered with it, just as ours are with barn manure; and when it is spread, the ground appears, at a little distance, as if it were covered with snow.

But the richest and most profitable kind of dressing which has yet been tried, and which is a new source of agricultural wealth to Great Britain, is *bone manure*. It began first to be used, on a large scale, in Yorkshire and Lincolnshire, where its influence has been all but miraculous! Extensive tracts of country, which a few years ago were mere wastes, occupied by rabbit warrens, have been converted into some of the finest and best managed farms in England. This signal improvement, though it did not begin, has been carried to its present perfection by the use of the manure just mentioned. Since bone dust has come into general use, the turnip crop has been increased in many instances, *ten-fold*, and in few less than *four* or *five* fold, and the effect has been equally surprising upon the succeeding crops of grain, on the same land. This is the testimony of practical men, well acquainted with all the circumstances, and they have no doubt that the soil will go on progressively improving, and requiring a less quantity of bones, annually, from its increased fertility and power. It answers best on light chalky soils. A single farmer in Lincolnshire, is said to have generally about 600 acres dressed, almost entirely with bone manure, furnishing a vast supply of food for cattle, and of common manure for other lands, and is fitting those on which it is sown for bearing the most luxuriant crops of wheat and barley.

In Scotland, the use of bone manure is still more recent, but scarcely less productive. In the Lothians, in Berwickshire, and in fact, every where, it is working wonders. Being so light and easily transported compared with any other kind of manure, many a rugged and hilly tract is fertilized by it, which must otherwise have remained in a state of nature. To pulverize the bones, mills are constructed in the vicinity of all the large towns, and besides what their own markets furnish, large quantities of bone dust are imported by the Scotch farmers.

I am almost ashamed to offer your readers this brief and meagre sketch of the present state of British agriculture; but neither time nor space, will permit me to enlarge. There are limits, no doubt, beyond which improvements in cultivating the soil, cannot be carried. But there is no reason to think, that these limits have yet been approached, even in the most productive districts of England and Scotland—for the science of agriculture never advanced more rapidly than it has

done within the last few years; or rather, I should say, were I entitled to speak with any authority on this subject, it seems to be almost in its infancy. Who that looks at the astonishing improvements of the last fifty years, both in the science and art of husbandry—who that recollects how lately the potatoe, that most rich, nutritious and productive of all our farinaceous esculents, has been brought into general use, who that considers what inexhaustible sources of nutrition and fertility and wealth, the turnip and other green crops have so recently become in Britain, will undertake to say, that other vegetables, still more nutritious and productive, may not yet be introduced and brought under general cultivation? Who can tell, what new substances scientific and practical agriculturists may yet find, possessing far higher fertilizing virtues, than any now in use, or what combinations and mixtures chemistry may furnish, so cheap and so abundant, as to put a new aspect of fertility upon lands already most productive? Who, in looking at the best acre in all England, would venture to say, that it can never, by any possible improvements and discoveries, be made more productive of human sustenance than it now is? Who knows, but that a hundred, or a thousand years hence, it may yield four fold? Who, in short, can even conjecture, what amazing undeveloped agricultural resources yet lie hidden in lands, which have hitherto been regarded, as scarcely worth tilling at all? For myself, I do not deem it at all extravagant to predict, that in the millenium, if not before, the single island of Great Britain will produce food enough for a population of fifty millions; nor, that when swords shall be beaten into ploughshares, and spears into pruning hooks, and instead of the thorn shall come up the fir-tree, and instead of the briar shall come up the myrrh-tree, the present territory of the United States will pour the boon of plenty, into the laps of a thousand million of inhabitants!

Yours, sincerely.

[From the Genesee Farmer.]
MANAGEMENT OF A FARM.

Mr. Tucker—Your correspondent P. has requested some information as to the best manner of conducting his farm, so as to improve and make it profitable. To give particular directions in such a case you will perceive is impossible, without a more full and minute knowledge of the farm occupied than has been given, and even then much must be left to the judgment of your correspondent. To work a farm successfully, a knowledge of the leading constituent of the soil, and the manner in which it has been treated, is necessary. Some soils are adapted to wheat, while on others it is produced with difficulty, and a quite uncertain crop; on the last the grasses are generally found to flourish, and hence are good for grazing. As a general rule, it may be said that a farm which will produce good wheat is capable of producing any other crop, of grass or grain, that the owner chooses to put upon it, and is therefore capable of any system of amelioration or improvement that experience or science may have devised. On the supposition that P's. farm is of this class, I shall throw out a few hints, which may possibly be useful to him, or to others, in farming.

Experience has shown, what indeed theory indicated, that the successful management of the soil is most intimately connected with a rotation of crops; and the best manner in which such rotation could be brought about has engaged the attention of most of the scientific and able farmers of the present time. The doctrine of rotation is founded on the simple but well established law of nature, that different plants require different kinds of food to support them—that they take this food from the soil in variable quantities, and consequently ground, when exhausted for one plant, will sometimes produce an abundant growth of another; that such is the fact is shown by every day's observation of the process which governs the growth of plants. It may be remarked, also, that plants derive their growth principally from decayed plants; and hence, in a rotation of crops, particular attention should be given to those that return the most to the soil on which they grow. Reference too must be had to the mode in which plants receive their nutrition. Some spread their roots near the surface of the earth, as wheat, rye, &c., while others, as the tap-rooted plants, draw their nourishment from a greater depth, scarcely throwing out a root near the surface.

Keeping these facts in view, the rotation of crops, and the alternate culture of every part of the farm, instead of ploughing one field year after year, or mowing another, has introduced a new era in agriculture, improving instead of impoverishing the farm, while the products and profits have in many instances more than doubled. In the system of rotation, the course of plants required for its completion must in some measure depend on the time to be gone through, whether 4 or 6 years, or, as is sometimes the case, where immediate profits are required, only two or three are allowed. In Pennsylvania, where the system has reached great perfection, the course, as stated in the Farmer's Reporter, is as follows:—Corn the first year; this is always planted on sward ground, carefully ploughed once, two or three weeks before the time of planting. The sward is well harrowed without disturbing the sod, marked off with rows three feet apart, in which the corn is planted in hills, one and a half or two feet apart. The corn is plastered when well up, and if too thick is thinned at hoeing. The next crop is oats or barley, sown the succeeding spring; this crop is followed by wheat, the ground being first thoroughly manured with barn-yard manure. A rye crop follows the wheat, with which clover seed is sown in March. The clover remains two or three years, and is plastered, when the same rotation commences again.

Mr. Stevens, one of the most successful farmers on the Eastern Shore, Md., has given an account of his system of rotation, or what he calls the 'seven field system,' and which, after a long experience of other modes, he decidedly prefers. His farm is divided into seven fields, two of which are every year in corn, two in wheat, two in clover (one for mowing, and the other for pasture,) and one, the stock-field, vacant.

Mr. Stevens says, 'you will observe one corn crop annually will be on the clover, therefore, as you do not turn in clover for fallow, which I consider of high importance, I would strongly recommend to have the clover field (after taking therefrom a crop of seed,) reserved unpastured, and

turned in, in the fall, as a preparation for corn, by which means you procure all the advantage to be derived from the clover.'

In western New York, where wheat is the great object, and clover is relied on as the great renovator of the soil, the course of cropping has a direct reference to that object. Where it has been required to make the most money in the shortest time, without reference to exhausting the soil, wheat after wheat has been resorted to, to a considerable extent. Where some regard has been had to the future state of the soil, as well as immediate profit, wheat, clover, and wheat, have followed each other; and where the object has been to improve the soil, as well as secure profit, a course, embracing from four to six years, has been adopted, including wheat, clover, corn, and roots. In a former volume of the 'Farmer,' a farmer of Monroe gave the following account of his system. My 150 acres of plough land is divided into ten lots, of fifteen acres each. My course commences in spring, with three fields in wheat, the rest all in clover. I again repeat, that all the clover which is to be ploughed must be sown with plaster. Fields Nos. 1, 2 and 3, in wheat. No. 4 to receive the yard and stable manure, (which must always be the case with the hoe crops,) once ploughed for corn, potatoes or other roots. No. 5, barley. No. 6, mow for wheat. No. 7, pasture for wheat. No. 8, meadow. Nos. 9 and 10 pasture. Of my 150 acres, 45 of them are annually in wheat; 15 in corn, potatoes, and other roots; 15 in barley; 30 in clover, preparatory to wheat; 45 for hay or pasture. If the corn ground is sown with wheat, the field which was intended to be mown as fallow may be ploughed in the spring for barley or oats, though the first is by most preferred. The barley stubble should be ploughed twice previous to sowing with wheat. The meadow which is to be sown with wheat, if broken up in July, must be ploughed twice; but if left till August, only once, but very carefully done. The pasture which is intended for wheat ought to be broken up in July, must be ploughed twice; but, if left till August, only once, but very carefully done. The pasture which is intended for wheat ought to be broken up in June, and twice ploughed.

In the New England Farmer, for 1823-4, is a valuable paper from Judge Buel, detailing his course of four years, and of five, with a particular account of the expense of profits per acre. His 4 years' course commenced in the spring with corn on land thoroughly manured, the sward turned over, rolled, and corn planted. In the fall corn cut by the bottom, harrowed and ploughed, and sown with wheat. Second year wheat, with turnips after. Third year barley, with ten pounds clover seed per acre. Fourth year clover, pasture or mowing. In the five years' course:—Indian corn as before. Second year, wheat with ten pounds of clover seed per acre; third year, clover for mowing—after mowing, turned over, and ruta baga sown; fourth year, clover for mowing or pasture. The manure, in all cases, to be applied to the corn or the turnips.

We think P. will find, in the foregoing examples, sufficient direction as to the most approved method of cropping, or cultivating his farm, so as to make it both durable and profitable. He must, however, bring his own judgment largely into re-

quisition, or he will, after all, fail as a farmer. Experiments and books furnish results and principles—the application of them must depend on the individual. If the farm is destitute of fruit trees, let him apply to some nurseryman of established probity for a supply, and be careful that the selection is of the best kind, and *adapted to his location*. To plant poor fruit trees, because they can be obtained cheaper, is miserable policy, and poor fruit is worse than nothing; and there are locations where expenses in procuring certain kinds of trees would be entirely thrown away, for they will not succeed. If P. wishes stock, let him procure good blood, and good formed animals, and he need not fear result; the best, in such cases, are usually cheapest in the end.

But if, after all, P. wishes to succeed as a farmer, he must attend to his farm himself. He must see there is a place for every thing, and every thing in its place; he must say to his laborers, *come, not go*—and he must know, by personal observation, that there is such a thing as the rising of the sun. With industry, prudence, and economy, a farmer cannot fail to grow rich; and an increase of knowledge should be in an equal or increasing ratio. W. G.

[From the Georgia Constitutionalist.]

A WORD FOR THE PLANTER.

Messrs. Editors—It seems the arrangements in New-York have not stayed the failures, although apparently seconded by returning ease in the London money market. Some moneyed men and many dry goods dealers are added to the list of failures. The sore is too deep to be healed without being severely cauterised, both here and in England. I see little or no chance of the recovery of the former prices of cotton this season, and it looks as if they will be reduced to the rates of three or four years ago. *Nothing can prevent the further decline, but the planters holding over a part of this crop and planting less.* The currency of England is in a dreadful state; and the Bank of England itself does not feel altogether safe. This will be a good excuse for her to carry into effect all her designs against American Commerce.—She refused discounts and pressed the Joint Stock Banks; they the spinners and merchants, and the spinners and merchants are pressing for all their dues, much of which is in this country. If they should receive all, it would fall short of their payments, since they have borrowed largely of the Joint Stock Banks to build new mills and increase their investments of various kinds. The Joint Stock Banks have very little of their stock paid up. Some not one-tenth of their capital or issues. And the specie in England is estimated by some at one-twentieth of the circulation. Hence, unless they can obtain speedily specie in quantity, or Parliament passes some law on the subject, the contracting system must continue, which will lessen materially the consumption of Cotton. With a reduction in the consumption, *there will be, unless we hold back a part of the present crop and plant less this year, an increase of stocks, and consequently, permanent reduction in prices.* Production will now have the start, and must, under the circumstances, without some countervailing course for this movement is adopted by us, will

run far ahead. Besides the contraction, &c., in England, the state of our own country will cause less of English goods to be imported, especially too as our importers are indebted to the English who must of necessity press their debts, which will, as a matter of course, cause a falling off in the demand for goods, &c. at Manchester, and consequently add to the reduction of the consumption. We should act judiciously, play the Pacha of Egypt, and not let them experience any great increase of stock: but as their consumption lessens, lessen our exports, and let them feel that they are in our power and we not in theirs. [So necessary is Cotton to their peaceful existence, that as soon as their monetary affairs are arranged, they will be prompted, as a matter of security and peace, and by their jealousy of other nations in this trade, to bid up for the article. But if we press our Cotton upon them faster than they can consume it, which will be the case unless we hold some over and plant less this year, neither the fear of the want of employment for their millions of laborers, nor jealousy of other nations, will arise, and the supply of Cotton being more abundant than the demand, prices, of course, will decline. If the planters adopt the principle that the lower the price the more they must plant, in order to get as much money as when the prices were high, they will certainly reduce the article to its former low rates, which certainly cannot yield them as much to the hand. If they will only look back, they will see this clearly exhibited in past years. In 1824 and 1825 the consumption was supposed to be beyond the production; prices consequently were very high; it was found to be a mistake; the raw material had been rapidly manufactured, and the goods shipped off; but they were not consumed, and many were reshipped back to England. When this occurred we did not give them time to recover from their losses, and the consequent derangement, but kept increasing the production and pressing the article upon them, which caused to follow a number of years of low and declining prices, and to continue until they recovered from the blow of 1825, and found new markets for their goods. Such will probably be the case now unless we pursue a different course at this time. If we do, the recovery must be more rapid, not only through the adoption of the course of holding, but from the fact that the present difficulties arise more from the state of the currencies and wild speculations, both there and here, than from any circumstance in the Cotton trade. To be sure the European stocks of Cotton have been increasing for the last two years, though not much in Americans, until the state of the currency checked the consumption.

In fact the stock of American Cottons cannot be said to have increased even in the last two years; for while the stocks of American Cottons increased abroad, they became less at home, clearly showing that the consumption of our Cottons was quite equal to the production. There is no stock of goods or yarns in the hands of the spinners, nor a superabundance in any country to be returned, as in 1825 and 1826; hence, as soon as the currency is regulated, and the shock produced by wild speculation of all kinds passes off, the consumption will probably resume its wonted pace, and prices of Cotton will, in some degree, react. This seems to me to be the proper view,

and if so, all should combine and save to the country thousands, which the pressing of sales and exports at this time under such circumstances, will be throwing away, or giving to those who do not need it, and who like ourselves may be benefitted by the holding back. I should suppose, that unless the Planters have taken large advances on their crops, it might be easily effected, since they must find 7 a 12 quite repugnant to their ideas, when they objected to 14 a 17. Now, there is scarcely a market for cotton any where, and a sale is but a sacrifice. It is not more than probable, that the arrangements in New York and Philadelphia for shipping specie, and emitting bonds payable in Europe, guarantees almost of further shipments of specie at distant days, with the cessation in the exports which is now taking place, at least, in the Atlantic States, and the statements which will go forward of the Planters holding back the remainder of the crop, or a portion of it, may produce at Liverpool in May, some little reaction in prices; much however, at so early a period, will depend upon the Bank of England and Parliament. And it is to be feared that the west, in the midst of its trouble, before she has reflected, may press off her crops, which is abundant, at low prices.

If the planters, now while the chain of commercial arrangements is broken; while merchants at the North and in England refuse consignments where drafts are drawn against them, and when the English Agents and all those who have shipped Cotton, are fearing the return of their drafts with heavy damages, in addition to their losses upon the Cotton, will press the sale of their crops, but a moment's reflection will show, and must convince them, how low prices must fall.

A GEORGIAN.

MEETING OF TOBACCO PLANTERS.

An adjourned meeting of the citizens of Prince George's county, interested in the Tobacco trade of the United States, was held at the Court-house, in the town of Upper Marlborough, on Thursday, May 4, 1837.

The chairman having called the meeting to order, THOMAS F. BOWIE, Esq., from the committee heretofore appointed for that purpose, submitted the following preamble and resolutions:

Whereas, by a resolution of the last Congress, the President of the United States was authorized and directed to instruct the different diplomatic agents of this Government, in foreign countries, to negotiate upon the subject of a diminution of the duties imposed on American Tobacco, and to procure, if possible, the reduction of those duties, so as to place the article of American Tobacco upon the same terms of reciprocity and favor with the productions of foreign growth and foreign merchandise in our own ports; and whereas, also, appropriations were made by Congress for the sending of ministers to Austria and Prussia, and other agents to different foreign ports, for the avowed purpose of representing the peculiar interests of the Planters of Tobacco in the United States, and others engaged in the Tobacco trade; and whereas the Planters of Tobacco feel particularly concerned in the success of the measures recommended by Congress for their benefit, and therefore desire to see those measures carried out

by the Executive, in the mode best calculated, in their judgment, to ensure their speedy and favorable termination : therefore,

1. *Resolved*, That the President of the United States be respectfully requested, in the name of this meeting, and on behalf of the great body of Planters of Tobacco in the United States, to appoint, as soon as possible, and with as little delay as practicable, the different agents and foreign ministers authorised by the said resolution and proceedings of Congress; and that, when appointed, they be required by him to proceed, with the greatest possible expedition, to the discharge of the various duties to be assigned them, in order that information of the result of their efforts may be received before or during the next session of Congress, and in time to obtain the legislative aid of that body, in the event of its being necessary, to effect any of the purposes of their missions.

2. *Resolved*, That it would be more conducive to the interest of the Planters of Tobacco in the United States, and it is therefore their earnest desire, that the appointments of minister to Austria, and the different agents, recommended by the aforesaid resolution of Congress, should be made from that portion of the United States where Tobacco is cultivated as a staple crop; and that the President be respectfully requested to select (in making his appointments to those offices) some fit persons, in all respects suitable to him, who are citizens of Tobacco-growing States, and therefore more immediately interested in the prosperity of that class of our population, and more capable of representing their peculiar interests, and understanding their peculiar wants.]

3. *Resolved*, That a committee of ten be appointed by the Chair, who shall (on behalf of this meeting, and of the Tobacco Planters of the United States, having an interest in common with them) wait upon the President of the United States, on Monday, the 15th instant, and submit these resolutions to his consideration, with a request that they may receive his favorable attention, as expressive of the opinions and wishes of the citizens of those portions of the United States where Tobacco is cultivated, and who feel that they have more than an ordinary interest in their adoption and success.

Which were unanimously adopted. And the Chair appointed the following gentlemen the committee under the third resolution, viz :

John B. Brooke,	Wm. D. Bowie,
Thomas F. Bowie,	Benjamin Ogle,
Charles Hill,	Gov. Samuel Sprigg,
Col. David Craufurd,	Alexander Keech,
Col. John Contee,	Philemon Chew.

On motion of Mr. WILSON,

Resolved, That the Chairman and Secretaries be added to the committee above named.

On motion of THOS. F. BOWIE, Esq.,

Resolved, That the thanks of this meeting (in behalf of the Tobacco Planters of the United States) are due to the last Congress of the United States, for the favorable action of that body in promoting the views and interests of that large and respectable portion of our citizens, and for the liberal spirit with which they favored the resolutions and memorial of the convention of Tobacco Planters which met in Washington during the late session.

On motion of T. G. PRATT, Esq.,

Resolved, That the President of the convention of Tobacco Planters which convened in Washington on the last Monday of January last be, and he is hereby requested to call together the said convention, to meet again at the same place, some time during the first week of the next session of Congress, in pursuance of the authority vested in him by said convention.

On motion of Col. CRAUFURD,

Resolved, That these proceedings be signed by the officers of this meeting, and published in the National Intelligencer, Globe, and Marlborough Gazette.

ROBERT W. BOWIE, Chairman.

H. C. SCOTT,	} Secretaries.
S. L. BROOKE,	

ON PLOUGHING.

There seems to exist quite a diversity of opinion in regard to the proper depth that land should be ploughed. Many, and in our opinion, too many, advocate shallow ploughing. "What's the use," say they, of ploughing up the sand and burying up the manure and the soil out of the reach of the plant? "Let us reason together." What's the use of ploughing at all? Is it not that we may pulverize the soil and bring it to such a state that the little roots and fibres of the plant may shoot out and gather up whatever they can find to nourish it? Is it not to incorporate the manure with the soil, and make it of a uniform consistency as it regards quality, &c.

Now the deeper you make the soil the deeper will the roots plunge, the more nourishment will they be likely to find, and the less liable will they be to injuries from drought. Plough deep; don't fear burying the manure so deep that the roots will not find it—they will go as deep as you can by any plough ever yet made. It is possible you may not realize so good a crop the first year by burying the manure deeply; you will not lose it; the next year you will have deeper soil—and in a short time, your land will of course be with double depth of soil. What makes the intervals and bottom lands so much better than most uplands? Is it not depth of soil? Aye, but nature made that. Take nature's advice and make yours so. If nature had made a plough of the elements and buried her vegetable matter deep, and made a soil ten-fold more valuable for it, follow her example. She did not do it all at once, neither need you if you are not able. If you think you have not manure sufficient to make such a soil the first year, or must have the benefit immediately, act accordingly, but begin immediately. If you can plough but four inches this year, plough six the next, and increase annually till you get the soil deeper than you can get the point of the plough.—We may appear somewhat dogmatized in our advice, but that is of small consequence provided we can dogmatize some into practice, who are now utterly opposed to it. What runs a farm out, as it is called? Is it not shoal ploughing, a scratch over the soil, as if you were afraid of getting out of the reach of the sun and air? We may verily believe this is the principal cause. The remedy must be the reverse course of management.

2. Sales of Flour at Cincinnati, May 6, were made at \$5.

AGRICULTURE.

It is very evident that for a few years past the Agriculture of America has been rising in the scale of human employments; its rewards have been greater than were ever realised before. We do not mean that a given quantity of farmer's produce has sold for more dollars than it ever commanded before, but that with a given amount of labor the farmer is enabled to produce a greater amount of wealth, to command a greater amount of the substantial comforts and conveniences of life.

A glance at the causes of this appreciation of agricultural industry, will convince us that it is destined to be permanent.

There is no apprehension that our agriculture will ever degenerate, and fall back to the unskilful, inefficient labor of the half barbarous cultivator with his wooden spade.

As far as the prosperity of this leading occupation depends upon a skilful and judicious cultivation of the earth, it is not only certain not to recede, but to advance.

But the prosperity of the agriculturist is promoted not only by improvements in the processes of his own art, but by improvements in all other arts. The products of agriculture, being articles of prime necessity, have at all times nearly the same intrinsic value. But their exchangeable value varies very greatly. Before the invention of the spinning jenny and the power loom, a bushel of wheat might have paid for two and a half yards of cotton cloth of a given quality; whereas now a bushel of wheat will buy six or seven yards of a fabric of equal or better quality. So a great number of other manufactures have contributed to increase the exchangeable value of agricultural produce. And it is obvious that these advantages are as permanent as the applications of mechanical power that have given birth to them. The present improved processes in the manufacture of useful fabrics will never be abandoned unless still better are discovered.

It is the growth of various manufactures in our own and other countries, and the improved means of transportation by which these manufactures are brought to our doors, that have chiefly contributed to secure a better reward for agricultural industry.

Finally, agricultural industry was greatly elevated when the plow was substituted for the spade. Its condition was still further improved when the several kinds of labor were divided, and mechanical expertness acquired in the various arts. It advanced still farther, (and of this last amelioration we have by no means reached the utmost extent,) when labor-saving machinery was generally introduced in the manufacturing arts.—*Detroit Journal*.

Wheat Fly.—It is said that one bushel of unslacked lime, ground fine like Plaster of Paris, to the acre, and sowed in the spring, just as the wheat begins to grow will destroy the wheat fly.
Albany Argus.

The Worcester Palladium says it is cheaper to fatten hogs with oats, if they are cut when just ripe, as two crops may be procured, and they are as good as corn.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	7 50	9 50
CORN, yellow.....	bushel	85	86
White,.....	"	80	
COTTON, Virginia,.....	pound		
North Carolina,.....	"		
Upland,.....	"		
Louisiana 20a21-Alabama	"		
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's.....	"		
Do. do. Superfine, ex.	"	8 75	8 50
SuperHow. st. in good de'd	"	9 00	
" wagon price,.....	"	8 25	
City Mills, super.....	"	7 00	
Do extra.....	"	8 25	
Susquehanna,.....	"		
Rye,.....	"	6 50	6 75
Kiln-dried Meal, in hhds.	hhd.		
do. in bbls.	bbl.		
GRASS SEEDS, red Clover,.....	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"		3 00
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"		1 25
HAY, in bulk,.....	ton.	16 00	20 00
HEME, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	7 75
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	17	
second,.....	"	13	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	45	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 87	
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	3 00	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 40	1 60
Red, best,.....	"	1 30	1 40
fair to good 100a130, inferior	"		
WHISKEY, 1st pf. in bbls.....	gallon.	35	asked
" in hhds.....	"	33	do
" wagon price,.....	"		bbls
WAGON FREIGHTS, to Pittsburgh,.....	100lbs	2 00	
To Wheeling,.....	"	2 25	
WOOL, Prime & Saxon Fleeces,.....	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

REMARK—The prices are but nominal, as there are but few transactions.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured.....	pound.	13	
Shoulders,..... do.....	"	11½	12
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	7½	7½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	23	28
CIDER,.....	barrel.		
CALVES, three to six weeks old.....	each.	5 00	7 00
Cows, new milch,.....	"	30 00	40 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 81	1 87
CHOP RYE,.....	"	2 00	
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,.....	barrel.		
No. 2,.....	"		
Herrings, salted, No. 1,.....	"	2 75	
Mackerel, No. 1, ————No. 2	"	9 50	10 00
No. 3,.....	"		5 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgin. 4a4½
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	1a	Norfolk,..... do
Frederick,.....	do	Winchester,..... 2a2½
Westminster,.....	do	Lynchburg,..... 5
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,.... 2		Bank of the Valley,.... 2
Salisbury,..... 2 per ct. dis.		Branch at Romney,.... 4
Cumberland,..... 3		Do. Charlestown,.... 2
Millington,..... do		Do. Leesburg,..... 2
DISTRICT.		Wheeling Banks,.... 4
Washington,.....		Ohio Banks, generally 6a7
Georgetown,.....	Banks, 1p.c.	New Jersey Banks gen. 5
Alexandria,.....		New York City,..... 1
PENNSYLVANIA.		New York State,..... 6a7
Philadelphia,..... 1a		Massachusetts,..... 3a3½
Chambersburg,..... 3		Connecticut,..... 3a3½
Gettysburg,..... do		New Hampshire,.... 3a3½
Pittsburg,..... 3½		Maine,..... 3a3½
York,..... 2½		Rhode Island,..... 3a3½
Other Pennsylvania Bks. 4		North Carolina,.... 8a10
Delaware [under \$5].... 6		South Carolina,.... 10a12
Do. [over 5]..... 3		Georgia,..... do
Michigan Banks,..... 10		New Orleans,..... 15
Canadian do..... 10		

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the county. It is remarkably healthy and handsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; CASH will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to

EDWARD P. ROBERTS, Baltimore, Md.

DURHAMS AND DURHAM GRADES.

I have for sale a beautiful full-bred Durham bull, 5 years old, proceeding from the finest of the improved Durhams; a two year old do. 15-16ths blood, the ALOR being Devon and coming from Flora, that Queen of cows, raised by the Hon. Charles A. Barnitz, which, when fresh, gives 20 pounds of butter a week.

ALSO 8 half-bred milch cows, mostly springing at this time: these are by Col. Powell's improved Durham bull Monk, out of capital Pennsylvania cows, and warranted to give from 16 to 20 quarts of milk a day when fresh.

All applications must be post paid. Address

EDWARD P. ROBERTS, Baltimore, Md.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each,

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER AND GARDENER, North-east corner of Baltimore and Charles streets, Baltimore, Md.

April 18, 1837.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100

Do. exclusive of the wheels, shafts and axle, 60

For applying the machinery to a common cart 45

For the machinery alone 40

Including the patent fee in each case. fe 28 3t

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 14 hands and half inch, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to EDWARD P. ROBERTS,

Ap. 18. 4t. Baltimore, Md.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,

87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

CONTENTS OF THIS NUMBER.

Manuring corn—beets and parsnips—ruta бага—manufacture of beet sugar in France—Editor's correspondence—notice of Dr. Humphrey's letter on British agriculture—the growing crops—culture of potatoes in Prussia—the pressure in the money market, and suspension of specie payments—on the management of slaves—important invention—prices in 1817—injury of peach trees—Dr. Humphrey on British agriculture—on the management of a farm—a word for the cotton planter—meeting of tobacco planters—on ploughing—flour at Cincinnati—Agriculture—to destroy the wheat fly—fattening hogs with oats—advertisements—prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 4.

BALTIMORE, MD. MAY 23, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 23, 1837.

If there be any agriculturist who may be anxious to make an experiment in making Beet Sugar, he should not be deterred on account of the lateness of the season. Although it would have been better to have gotten the seed in some weeks ago, there is still time, if sown any time during this month, for the beets to mature by the middle of October. So far as the practicability of making beet sugar may be concerned, the experiment can be as well tried on the tenth part of an acre as on any larger portion of ground; and we will venture the assertion, that there is no farmer's wife from the Penobscot to the Mississippi, who, if she were to put her ingenuity to the test, but could with ease fabricate sugar from the root. Our knowledge of the ingenuity of the sex—of their unswerving perseverance in the pursuit of laudable ends, conspire to make us believe that there is no obstacle which they could not overcome, and as the trophy on this occasion is one to be dedicated to patriotism, we hope each of our readers will feel an appeal made to his pride, to provide his better half with the raw material for making a small portion of domestic sugar.—Our head to a dernier, give an American lady a bushel of beets, a curry comb, or a rasp, a boiler and fuel, and she will make out to manufacture sugar good enough to grace any table in the land.

DEEP PLOUGHING.

We are indebted to the politeness of an esteemed friend at York, Pa. for the loan of a pamphlet written thirty-six years ago by T. Moore, a worthy member of the Society of Friends, a resident of Montgomery county, Md. The pamphlet is entitled, "*The great error of American agriculture exposed, and hints for improvement suggested.*" Among the subjects treated of, is that of

deep ploughing; it will be perceived that Mr. Moore is a strenuous advocate for penetrating the earth to considerable depth, and that he ascribes much importance to its meliorating effects. The experience of this gentleman, (he being a practical and scientific farmer) the facts adduced by him in illustration of the correctness of his views, together with the force and tenor of his reasoning, all tend to impart importance to what he advances. We read his essay with feelings of satisfaction, generally approving of his views. With respect to deep ploughing, we have always entertained the opinion, that it was one of the most effective means that could be used to render the earth fertile, and have, therefore, regretted to find so many bowing to the prescriptions of ancient prejudices.

Than the late Mr. John Yellot, sen. there perhaps was not to be found a more intelligent, thorough-going practical farmer; and he, as we do know, was not only a believer in the virtues of deep ploughing, but carried his faith into practice, much to the advancement of his private fortune. By deep ploughing, judicious rotation of crops, and a wise use of the manure made on a farm he purchased some years before his death, he brought it into a state of fertility that challenged the admiration of every one who saw it.

We have commenced the publication of this pamphlet in to-day's paper, and ask for it an attentive perusal.

We have before us three specimens of sewing silk made in Pennsylvania, the two first were fabricated by Mrs. Ritner, the lady of governor Ritner. She fed her worms upon the black mulberry, and used the common reel and wheel. The third specimen was made by Mrs. Mahan, the lady of Mr. J. M. Mahan, of New Italy, Pennsylvania. The touch and finish of each, do great credit to the ladies by whom it was respectively made. Mrs. Mahan's worms were fed on the white Italian Mulberry, and like Mrs. Ritner, she had to use the common Reel and Wheel.

We derive great pleasure in recording these strong evidences of the patriotic zeal of two of the matrons of the Key-stone State. Such devotion

to a branch of industry so eminently entitled to the fostering care of the nation, endear them to generous hearts. The example they have set is worthy of all emulation; and if good deeds can perpetuate names with which they may be associated, surely those of these ladies will live through all time as among the benefactresses of our country. We know no effort, which patriotism is capable of exerting, more ennobling in its influences than that which promotes a new branch of human labor, unfolds a source of employment to the industrious poor, and vouchsafes to enterprise its legitimate reward. Such is the character of the silk culture: and for the part which these estimable women have taken to enkindle a spirit of laudable rivalry, they are entitled to, and we trust will receive, the benedictions of the just.

RUTA BAGA.

Have any of the farmers of Warren provided themselves with the seeds of this root? If not, we earnestly entreat them to do so—there is time yet. The Ruta Baga is one of the most valuable roots, either for feeding horses, cattle or sheep, or for the table, to the culture of which the farmer can turn his attention; and its large yield gives ample payment for labor and soil. All live stock eat this root with avidity and thrive upon it. One of our villagers has fed a horse and cow during the past winter and cold spring, with the produce of less than an acre of land sown with this root, which has been almost their only food; the horse is in good flesh and hardy to bear fatigue, and the cow has increased in weight, and yielded milk the whole time, from which butter as yellow as gold was made in sufficient quantity for his family's consumption, and now and then a beautiful specimen for his neighbors' tables. He informs us that the food of his horse and cow have cost him much less the last season, than any of the preceding years for many past.—*Belvidere (N. J.) Apollo.*

We are gratified to find such strong commendation of this most excellent root in so respectable a print as the above, and still more gratified to find in its able editor a most worthy co-adjutor. In the root culture, generally, and particularly of this, we have a deep interest,—an interest arising out of our honest convictions of the propriety of the measure, and therefore, receive every evidence of its growing favor with feelings of peculiar delight.

We raised a few bushels of Ruta Baga last year, merely as an experiment, and from our high esti-

mate of its intrinsic worth, we shall greatly extend its culture this season. Those which we raised were as good for stock or the table on the 1st of May, as they were when we took them from the field last fall; and we most sincerely believe might have been kept in edible condition during the whole of the present month.

We would advise all who have not yet prepared their ground, to do so without delay. The Ruta Baga will grow in any strong loam; well manured; new ground suits it admirably well—perhaps best; but any soil with a due proportion of sand in it, well manured, will bring a good crop. They thrive best in *drills*; but will answer well if sown *broad-cast*.

In conclusion, we would advise every one who intends to grow them to put them in by the 15th June.

A letter to the editor of the *Farmer and Gardener*, from an esteemed subscriber in Jefferson county, Va. has the following remarks on the prospect of the crop of wheat:

"Our wheat crop looks wretched beyond any thing I ever witnessed. If the season should be the most favorable until harvest, it is possible some of the most *forward* fields may make some wheat; but the greater portion of them will not be cut; and for myself I feel well satisfied that there cannot be as much wheat made in this county as there was last year. I don't know a farmer in my neighborhood that is not ploughing up more or less of his wheat, and planting it in corn or seedling it with oats."

Extract of a letter from a subscriber to the editor of the *Farmer and Gardener*, dated

BLAKELY, Alabama, May 1st, 1837.

"Herein enclosed I send five dollars, and wish your valuable paper continued to me another year.

"As the culture of silk excites a great deal of interest at this time in the U. S. (and deservedly too I think) I will state some facts in relation to the cultivation of the *Morus Multicaulis* in this vicinity, which have come under my knowledge—Last year in May I set out about 35 cuttings from the *M. Multicaulis* in my garden, 30 of which lived, and many of them grew to the height of 12 feet during the summer—In March, this year, I took 500 cuttings from them, which I set out in a field which is scarcely fertile enough for corn, and the most of them are growing luxuriously; in fact out of the 500 above mentioned, and 6000 additional cuttings of the *M. M.* which I procured from Col. Chester Root of Mobile, and set out in the same field in the months of February and March of this year, not more than 150 have died. The land contained in the field mentioned may be termed the better sort of pine barrens; it was (as it is here called) cow penned year before last; previous to which time it had laid fallow for a number of years. In setting out the cuttings I used no manure, but prepared the beds well by pulverizing the earth.

"One of my neighbors set out 400 cuttings in February this year in the most ordinary pine barren land, which has, however been in cultivation for a number of years, and all but about 40 of them are now growing finely. He used manure in setting out the cuttings, but the land is nothing but a bed of sand with very little admixture of clay; in fact he made the selection of land with the view of trying the experiment whether the *M. Multicaulis* can be cultivated on the ordinary pine barren lands or not. So far the experiment has succeeded, but it is not time yet to judge of its ultimate success. I think it a matter well worth the serious consideration of every well-wisher of his country, that a thriving population should spread over the immense pine barrens which extend along almost the whole of the south eastern coast of our country, and that villages and cultivated fields should take the place of the primeval forest, thereby connecting the sympathies and interests of the extremes of the union, which is so necessary to the well-being of our government. If, therefore, through your valuable paper, you would invite experiments and communications on the subject of the capability of pine barren lands to produce the mulberry or other vegetables which would largely administer to the wants of a community, directly or indirectly, I think it would be for the public good.

"I have heard some doubts expressed as it regards the practicability of growing the silk worm successfully in so humid a climate as the vicinity of Mobile and Blakely. If you are in possession of any facts that would bear on the question, you would oblige me by giving them publicity."

LARGE SWINE.

Extract of a letter from a friend in New Haven, Connecticut, to the editor of the *Farmer and Gardener*, dated May 13, 1837.

"I have for some time been taking memoranda of thrifty shoats and hogs butchered in this section of the country. I give you the following account of two pigs and hog butchered last fall, which, perhaps, were pretty good samples of the *thin rhind*.

"*Wm. Burton* killed a hog 26th Dec. 1836, being one day less than 14 months old: he weighed 500 lbs. without the rough fat, with it 530 lbs. gained each day on an average 21 ounces—61 lbs. lard.

"*Isaac Townsend* butchered 2 pigs 21st December, 1836, about 8½ months old—weight 240 lbs. 260 lbs., rough lard not included."

The "*Apollo*, published at *Belvidere*, New Jersey, under date of the 15th instant, says:

Peach trees were blossoming last week, yet so cold and backward is the season, that it is feared few peaches will ripen to fall or be plucked.

OATS.—The weather continues very dry, and the oats look unpromising. Wheat and Rye have improved but little.—*Centreville Times*.

THE GROOB-WORM.—This provoking enemy has made its appearance in the corn fields, cutting down all the young corn shoots that come in its way.—*Centreville Times*.

OUR AGRICULTURAL INTEREST.

The present storm will shew that the planters are the stamina of the country. While all around is crashing, they stand firm, from the seaboard to the mountains—and we hazard nothing in asserting, that at this moment, there is not in the Union a more solvent State, than South Carolina. The crisis has found our planters for the most part out of debt—and where not out of debt, able to shew abundant means for meeting their liabilities. Most of the Cotton stored at the different home depots, we have reason to believe is in second hands—and though many of our planters have lost the opportunity of profiting by recent high prices, the stock yet remaining in the country, however limited the present demand, is so much actual wealth—equivalent in supporting credit, to specie; and most who have not sold are fortunately in a condition to await a turn in the tide. Hence the comparative exemption of our merchants thus far from the general bankruptcy. The only two large houses in Charleston which have been forced to suspend, suffered from the overtrading of others in the North and West, not from any imprudence of their own—and the few retail houses which have gone, were we believe principally branches of broken houses at the North. Although stocks have gone down, and must decline further yet, there is universal confidence in the soundness of all our Banks.

Charleston (S. C.) *Mercury*.

HONOR TO PRACTICAL AGRICULTURISTS.—NATIONAL BENEFACTORS.—The names of those who have enriched our gardens with useful and valuable plants are deserving of record and remembrance. Sir W. Raleigh introduced the potatoe, Sir Anthony Ashley first planted cabbages in this country—a cabbage appears at his feet on his monument; Sir Richard Weston brought over clover-grass from Flanders in 1645; figs were planted in Henry the Eighth's reign, at Lambeth, by Cardinal Pope—it is said the identical trees are still remaining.—Spilman, who erected the first paper mill at Dartford, in 1590, brought over the first two lime trees, which he planted, and they are still growing. Thomas Lord Cromwell enriched the gardens of England with three different kinds of plums. It was Evelyn, whose patriotism was not exceeded by his learning, who largely propagated the noble oak in this country, so much so that the trees he planted have supplied the navy of Great Britain with its chief proportion of that timber.—*Eng. pap.*

ROT IN COTTON.—Dr. R. Harden has recently published a long article on the "Rot in Cotton," which he supposes to result from a diseased or morbid condition of the seed. He proposes the following remedy:

"Select a part of the crop purposely for seed, let this cotton remain without picking until a killing frost, then, when the weather is cool, pick the cotton in dry weather, expose it to the sun and air every day until it is ginned, then sun and air these seed several days, until they are dry, then keep them thinly spread in a large room, opening the door and windows when the weather is fair, frequently stirring them and sunning them until planting time. Seed thus managed, I believe, will produce cotton that will not rot."—*Southern Times*.

THE GREAT ERROR OF AMERICAN AGRICULTURE EXPOSED, AND HINTS FOR IMPROVEMENT SUGGESTED.

BY THOMAS MOORE.

Prejudice, that great bar to improvement in the arts and sciences, perhaps no where exerts its baneful influence with more mischievous effect than in the practice of agriculture, particularly on this part of the American continent. Our predecessors emigrating from the different European countries, each brought with him the prejudices he had imbibed in his native land, and adopted the practice in this country, that he, and perhaps his forefathers, for ages before him, had adhered to, notwithstanding the great difference of soil and climate absolutely requiring a very different course of conduct. These prejudices acquired strength by time, and practices became venerable for their antiquity: and being accustomed to consider ourselves as the children of the countries from which we descended, of course we looked up to them as the only legitimate sources of improvement; the consequence of which has been, that notwithstanding considerable improvements and discoveries in agriculture have been made in Great Britain and other European countries, we have not derived those advantages from them, which might have been expected. Many of them having been implicitly adopted here, without the necessary variation for the difference in soil and climate, have failed. These unsuccessful experiments have tended to confirm the people of America in their former prejudices, and to induce them to treat with contempt every appearance of innovation in theory or practice.

So that, till very lately, a person in America would be almost as much exposed to ridicule by attempting to teach the art of ploughing, as that of walking, or any other common animal function. But happily for us, since the revolution, some of the citizens of the United States begin to think for themselves, and to seek in their own country for improvements; and during the short period of twenty years since that event, greater advances have been made in American agriculture than in a century preceding.

Under these auspices, I am encouraged to hope, that at least a part of the community will not condemn the following observations unheard. I wish my readers to divest themselves of every prejudice, as fully as if they had never read a treatise on agriculture, or were acquainted with no system of practice, until they have fairly weighed the arguments: then compare them with their own experience, and according to their merits let them stand or fall.

The native soil of a great proportion of the United States, so far as I am acquainted, or have been informed, consists of a black mould from one to four inches deep (on river bottoms, and other low places often much deeper) probably composed from leaves and other decayed vegetables. Immediately below this, is found a stratum of loam, clay or sand, most commonly loam, intermixed with some kind of stone. The mould or virgin soil is always found extremely productive.

The climate, with respect to heat and cold, is various; in the eastern and middle states, the frosts are severe, the surface of the ground being

generally frozen for several months during winter; but their severity gradually decreases as we advance southward. In every part of the United States a considerable quantity of moisture falls in the winter and spring, in the different forms of snow, hail and rain: In summer, thundergusts, with intervals of hot dry weather, are also common.

Let us now consider some of the most visible effects of the climate, on the lands in tillage.

The winter frosts are no doubt useful, in dividing and ameliorating the soil; repairing in some degree, the injury it sustained the preceding summer. During summer, a great proportion of the rains falling hastily, the consequence is, that wherever the ground is not opened to a sufficient depth, to imbibe the whole before the surplus can have time to penetrate the hard *pan* beneath, a part of the soil becomes *fluid*; and if the surface is not a dead level, a portion of it is carried off: the remainder has a tendency to settle into a *compact mass*, which, if suffered to remain, without stirring, through the hot, dry weather, that often succeeds, until the particles of moisture it contains, are evaporated, becomes of the consistence of a *sun dried brick*, and consequently impervious to the roots of vegetables.

These things being premised, I shall, without further observations, proceed to the subject matter, and endeavor to enumerate some of the evils inseparably attached to that great error in American agriculture, *shallow ploughing*; beginning with new lands, or those just cleared of wood.

What is the language of our farmers and planters on these occasions? Our soil is not more than two or three inches deep; we must plough *shallow*, otherwise we shall turn up too great a portion of *dead earth*, and ruin our crops; they also say, we must plant *wide*, otherwise a drought will cause our corn to fire;* and for these supposed weighty reasons, those two practices are almost universally adopted on new lands, to wit:—*shallow ploughing*, and *wide planting*.

Here our men of experience prove they are acquainted with the effect, without knowing, or even inquiring into the cause. Their mistaken opinion, respecting dead earth, will be noticed in due place; but it remains here to be proved, that the necessity of wide planting, is one of the consequences attached to *shallow ploughing*. All plants imbibe moisture from the earth, by their roots; if this portion of their sustenance is withheld, tho' every other species of vegetable nutriment abound in the soil, the plant becomes sickly, growth ceases, and finally, death ensues. In search of the necessary supply, the roots of plants are extended in all directions, where the soil is open enough to admit them, and to a distance, proportionate to the demand; two plants of the same kind, require a greater quantity to preserve health, than one: hence it will appear, that a drought of sufficient duration to extract most of the moisture contained in that part of the soil, loosened by the plough, may yet leave sufficient to preserve one plant in health; but if divided, both must suffer, for neither can penetrate the hard unstirred earth below, for a supply. But in case of long droughts, no distance whatever will insure Indian corn from suffering, when the under stratum is hard, and the

* The lower leaves turn yellow.

ploughing shallow, and under these circumstances, few summers are so wet, but that close planted corn, at some period of its growth, discovers the want of a full supply of moisture, which perhaps might be amply afforded by one or two inches greater depth of ploughing. They have discovered, that after the first year, several succeeding crops will admit of being *closer* planted. the fact is, that the surface having now been for some time cleared of leaves, rubbish, &c. and exposed to the action of frost, sun and dews, that portion of earth, lying originally immediately below the black mould, and called dead earth, which was turned up by the cultivation of the preceding year (for in common soils, it is almost impossible to plough so shallow as to avoid turning up some, in new grounds) has now acquired a dark colour, and therefore not known to be the same; and some of the obstacles to ploughing, being removed, they almost insensibly, go an inch or two deeper, without shewing any greater appearance of the yellow or dead earth, so much dreaded, than the preceding year: this furnishes a more extensive pasture,* for the roots of the plants growing therein, and also becomes a more copious reservoir for treasuring up moisture for the needful time; and consequently affords a supply for a greater number of plants. The second year, is generally found to be much more productive than the first, after which our common lands gradually decline.

The undecayed fibrous roots prevent much loss of soil by washing, the first year, on lands not perfectly level; it generally begins the second, and continues annually. The ploughing being about four inches deep, does not afford a sufficient quantity of loose earth, to imbibe the whole of the heavy showers that frequently fall during summer; the consequence of which is, as before observed, that when the open soil becomes *saturated*, water must accumulate on the surface, and flowing off in torrents, bears away a portion of the finest, and most valuable part of the soil; succeeding ploughings bring to the surface a fresh supply of mould, which in turn follows the last. Thus ploughing and washing alternately, following each other, the original soil is soon deposited in sunken places, beds of creeks, rivers, &c.

This waste is in some measure compensated, and fertility continued, by the fresh earth brought up from below; for the plough continuing to pass about the same depth, must of course descend into the unstirred earth, in proportion as the open soil is carried from the surface; but of this the cultivator appears ignorant; the proportion brought up at each ploughing, being small, and soon acquiring a dark color by being exposed. I am fully convinced, that in many places the surface is now at least the whole depth of the ploughing lower than at first clearing: Of this we need no other proof, than the half buried posts in low places, the heads of rivers, creeks and mill-ponds filled up, which are every where to be seen in our hilly cultivated lands.

But, notwithstanding the before mentioned supply of vegetable earth from below, the soil em-

* For want of a more appropriate term, the word, pasture, is used to express the body of loose earth, into which, plants freely project their roots in quest of food.

ployed in cultivation, must annually become less fertile; because the coarse, the heavy and adhesive particles of earth, remain on the spot from the beginning, and those of the same properties contained in the fresh earth brought from below, also remaining, while the finer and more friendly parts, are continually carried away; at length the proportion of fine soil becomes too inconsiderable, to answer the purpose of vegetation to any degree of profit. Thus the land becomes sterile, not so much from the vegetable nutriment being extracted from the soil by the growth of plants, as by the soil itself being removed: that this is a necessary consequence of *shallow ploughing*, on lands that are in any degree hilly, in this climate, I trust, has been satisfactorily proved.

Another material evil that results from the practice of *shallow ploughing*, and which applies to all surfaces, level as well as hilly, is the injury the growing crops sustain for want of a more regular quantity of moisture in the soil: we know by experience, that either extreme is fatal to most of our crops; that the practice is calculated to produce both, at different periods, is evident: for, during a long continuance of *wet*, the water must stagnate in abundance about the roots of the plants: and on the contrary, a short continuance of *drought*, extracts nearly the whole of the moisture contained in the thin covering of *loose earth*, and it is not to be supposed, that the tender roots of plants in quest of a supply, can penetrate the compact earth below, which has been hardening ever since its formation.

Hitherto I have principally alluded to summer crops: but if we observe the effects of *shallow ploughing* on winter crops, we shall find the injury still greater. All that has been said, will apply to them in their autumnal growth; but it is in the spring, and early part of summer, that it often proves particularly injurious, and sometimes fatal to them. Those who have been accustomed to stopping leaks about mills, &c. know, that earth thrown into water, made to incorporate with it, and then subside, settles into a more solid mass, and becomes more impervious to water, than in any other way it can be applied: no ramming is equal to it: the same thing frequently takes place in degree, on the surface of our fields. The great rains that often fall about the vernal equinox, drench, and almost render *fluid*, our *shallow worked* soils; the solution of the finer parts, entering the pores, as the water evaporates, the whole settles into a compact mass, and so remains till harvest; for, notwithstanding it may be frequently moistened, yet no other disposition of parts, can be supposed to take place, until operated on by frost or the plough.

This state of the soil, is too compact to admit of the free extension of the roots, even when moist; but, when hardened by droughts, every particle of nutriment not in contact with some of the roots, is effectually *locked up* from the *suffering plants*. So that it often, nay almost always happens, on lands worked in this way, unless very rich indeed, that crops of wheat that look promising in the fall, and early in the spring, begin to decline towards harvest; and people are complaining of the unfavorable appearance of their wheat: when harvest arrives, the straw is almost too short to cut, and the heads about half the proper length, and those not well filled, yielding six or seven

bushels to the acre, where twelve or fifteen might have been reasonably expected, from the quality of the soil; these appearances and products agree with my constant observation for many years past, especially on early sowed corn ground, damages by fly, rust, &c. excepted.

If manures are applied to *shallow worked* soils, their good effects in general, will be of short duration, as most kinds must soon inevitably travel the road, the virgin soil has, before them.

I shall next enumerate some of the good effects to be expected, and which are constantly experienced by a *contrary practice*, viz: *deep ploughing*, when judiciously pursued; and then endeavour to prove the futility of the arguments adduced in favor of shallow ploughing.

In the cultivation of plants, three things are particularly necessary: First, that sufficient *pasture* is prepared for their roots; secondly, that the soil abounds with proper *aliment*, and thirdly, that *moisture* be duly administered, in neither *too great* nor *too small* quantities. That *deep ploughing* is calculated to promote these ends, I believe will not be hard to prove, particularly the first and third.

The quantity of earth operated on, being great, it very seldom, if ever happens, that any fall of rain is so great, as completely to *saturate* it; and until that effect takes place, or nearly so, very little change is to be expected in the disposition of its parts; and therefore when the redundant moisture evaporates, it leaves the soil as it found it, except a small crust on the surface; the succeeding ploughings, instead of being applied to repair the injury the soil has sustained by great falls of rain, go to the further pulverizing and opening it suitably to receive the capillary vessels of the plants. Thus the pasture becomes not only *more extensive*, but far *better* adapted to promote the growth of plants.

With respect to *aliment*, naturalists differ widely in their judgment respecting its nature and composition; my opinion is, that the food of plants has not yet been fully ascertained by any. This, however, we all know, that manures of all kinds, contribute in some way or other to the growth of plants; whatever may be their food, I will not pretend to say, that it is communicated to the soil by the mode of cultivation under consideration; but this I will say, that it is far better calculated than the contrary practice (*shallow ploughing*) to retain the quantum originally found therein, or afterwards applied to it; and further, if dews are nutritive, the superior openness of the texture in this mode, qualifies it to derive every advantage to be expected from that source.

But, perhaps the most valuable of all the effects resulting from *deep ploughing* is, that it in a great measure preserves an equal quantity of moisture in the soil; for as we seldom have a rain so great, as to produce an unhealthy stagnation of water about the roots of plants set in a soil 7 or 8 inches deep; so on the contrary, we scarcely ever have a drought of so long continuance as to extract all the moisture to that depth; for it is to be remembered, that after a few inches nearest the surface, moisture is extracted, by slow degrees: thus for instance, if it requires one hot day to dry the first inch, probably it will require three, for the second, six, or more, for the third, and so on; perhaps nearly in geometrical progression.

Thus it appears from the foregoing observations, that by this mode of practice the great loss sustained by *washing*, an evil so much to be dreaded in this country, is avoided; that whatever manures are applied, are safely deposited, and will act with full effect; that the growing plants are abundantly supplied, during the whole of their growth, both summer and winter crops, with an open soil, for a free extension of their roots, and also, with a regular supply of moisture; so that their growth is at no time impeded by any small irregularity of season; the depth of soil being to them, with respect to wet and dry, what the ocean is to small islands, with respect to heat and cold; the means of a tolerably regular temperature.

[To be Continued.]

BEET SUGAR.

FROM THE ALTON OBSERVER.

The following very interesting letter on this subject has been handed us for publication by the gentleman to whom it was addressed. Mr. CHILD went to Europe under the auspices of a company consisting of Messrs. B. GODFREY, W. S. GILMAN, Dr. B. F. EDWARDS, GEO. KIMBALL, and other citizens of this State. The object of the company, as we understand, it to introduce, if practicable, the culture of the sugar beet, and its manufacture, into Illinois. Mr. C. is himself connected with the company, and has gone to France for the purpose of acquiring such information as well be necessary and useful for their future operations. His letter will doubtless attract the attention of all our readers.

P. S.—Since the above was written, we have been informed that the company above referred to has been incorporated, for the purpose of manufacturing sugar from the beet, oil from the poppy, and the culture of silk. The capital of the company is \$200,000, with the privilege of holding real estate to a certain extent. We trust they will, in Western phrase, “go ahead.”

ARRAS, JAN. 9, 1837.

DEAR FRIENDS: I have now been one month an observer or laborer in a sugar manufactory, and have made short visits to several others. The beet sugar business, taken in all its branches and bearings, is interesting beyond my expectations; but to the mere manufacturer, I doubt whether it is as profitable as Pedder's report would lead one to suppose.

In the first place, the beets do not yield, on an average, more than *five* per cent. of sugar. They may yield more when first dug and before they have begun to *sprout*, but I am satisfied that *six* per cent. is the utmost that can be calculated upon, under the most favorable circumstances. The beets, after being gathered together in heaps and covered with earth to preserve them from frost, soon begin to sprout. By the middle of December this season, which had been warmer than usual, they had put forth considerable. Various expedients have been employed to prevent this heat, which is generated in the heaps, and gives rise to this, but none of them have as yet completely succeeded. This shows the importance of an early sowing, and an early commencement of working up the crop. Here the seed is sown in the first days of May. In Illinois I should suppose it might be sown as early. The work-

ing up of the crop ought to commence before it has attained its utmost growth, say in the last days of August or the first of September at farthest. There will then be seven months for the manufacture, and in most of those months laborers have little employment, and may be hired for comparatively small wages.

The quality of the sugar earliest made is the best, as well as the yield the greatest. In fact, a small quantity of the first product of the season is all the beet sugar I have met with that appeared to be fit to use *without refining*. In France very little except refined sugar is used, or had been for a long time before beet sugar was introduced. The meanest *cantines* (liquor shops) and the poorest families use constantly and exclusively refined sugar. To this circumstance I attribute the fact, that a certain bitter taste, generally belonging to the brown sugar of beets, has not been much mentioned here, and not known at all in the United States. It would probably be thought of great importance there. People are not agreed about it here. Some maintain that the brown sugar may be made at all times of such quality as to admit of universal use, and that in point of fact it is used to a considerable extent already. Others have told me that neither the brown nor refined sugar of the beet is equal to that of the cane. I feel able myself to contradict the latter assertion. I have used the beet sugar constantly since I arrived in France, and I can perceive no difference in flavor or quantity of saccharine between it and the sugar of cane. If there be any difference, it consists in a certain brilliant whiteness, which beet sugar seems to me to possess in a degree superior to most of the colonial sugar. I have good authority for saying that the French custom-house, though many tests have been applied, find it impossible to distinguish satisfactorily between the two. The reason why they seek to do so is, that a drawback is payable on the exportation of refined sugar of the colonies. The refiners offer beet sugar for the drawback, and obtain it, notwithstanding great vigilance is exercised upon the subject.

You see, therefore, that the sugar in a refined state presents no such difficulty as it does when raw. I have mentioned that difficulty, not because it weighs much in my mind, but because I think it probable that in the United States, where the consumption of brown sugar is great, considerable disappointment will be felt when the true character of that of the beet comes to be known. That character will undoubtedly be improved, especially in a country where the habits of the people demand a great deal of raw sugar. The beets will be better preserved, the machinery perfected, and the selection of seeds and soils made with more intelligence and care. I have before me a specimen of the brown sugar of the beet, as full of saccharine and as free from any bad taste as any cane sugar I ever saw, and far more beautiful in its appearance. It is like a rich yellowish New Orleans brown, that I have occasionally seen in the American markets, only a shade whiter. I have also a specimen of *clayed* beet sugar, of a pure whiteness, and free from all ill flavor. While, therefore, I state the general objection to the brown sugar of beets, I also say that, in a well-provided and well-conducted manufactory from beets just dug, or very well preserved, brown sugar can be

made as good, in every respect, as any from the cane, and far more beautiful and attractive in appearance.

The refining of sugar is not in any instance known to me connected with the manufacturing of it. I see no reason why they should be thought incompatible, especially as I am told that the same steam-engine would serve for both; and also for a third object, which I had not heard of until I come here, viz. the distillation of the refuse molasses into alcohol. This is not yet used for drinking, though I think it probable it will be converted to that use, but for making varnish, and other applications to the arts. This method of *utilizing* the molasses, after two or three deposits of sugar, is beginning to attract great attention among the sugar manufacturers.

The value of steam in the various operations of heating and evaporating, whether in the manufactory or refining of sugar, cannot be overrated. The superior economy of it although the first outlay is greater, cannot be questioned. It requires less fuel and fewer hands, and, in point of neatness, convenience, and despatch, admits of no comparison with any other agent. A method of distilling by steam has been discovered and patented in Belgium, which is said to possess the same character of superiority over the common process by furnaces, as the use of steam in sugar manufacturing and refining.

I have paid some attention to refining, and, I think when I return to America, I shall bring all the secret about which L***** and his friend ***** made so much ado, and of which the former claimed to be the discoverer. I *guess* there was nothing but what Pedder got in England and France. The fact is, that the introduction and rapid improvement of the beet sugar manufacture in France have given such an impulse to invention and to chemical research, that it is morally impossible for a single year to pass without bringing forth something new and valuable in the arts of making and refining sugar. I am informed, since my arrival here, that a great discovery has recently been made by a Frenchman in Brazil, who has lately returned to France and patented it. It consists in making and refining sugar *by one operation*. There are as many systems of sugar making here as there are sects of Christians in America. A new one is lately introduced, which is supposed to be superior to all others. It is my intention to examine all, before I give a preference to any. The most interesting aspect of the beet sugar business is its bearing upon agriculture and rural economy.

It enriches the land, both as an excellent substitute for fallowing, and as producing an immense quantity of capital manure.

It has the latter effect in various ways, but principally by feeding a large number of cattle and sheep. The former are fattened in three to three and a half months, in a manner really superb. So fine specimens of beef creatures are seldom seen in the United States, after six months of the best pasturing and stall-feeding. The sheep are fattened in six weeks. At the manufactory where I have been, they pay, on an average, about six louis for cattle, and sell them for eleven. A louis is about \$4 37. I suppose that this branch of the business would be quite as lucrative in the United States, where stock ani-

mals may be bought somewhat cheaper. This, you see, is doubling capital three times a year, with the help, however, of the pulp, or pumice of the beet. This can be kept good any desirable length of time. It is sold here at ten cents the cwt.

The profit of raising the beets is very great, according to estimates which I have from the most intelligent sources. I do not find it so high as Mr. Pedder did. My data make the nett gain in France, after paying rent, ploughing, weeding, hoeing, digging, and preserving, 404 francs per hectare. This measure is a trifle over two English acres. Consequently, the profit of cultivating beets on an acre will be 202 francs—about. Can you wonder that land has risen from 50 to 150 per cent, in the districts of the sugar manufactories? The wages of labor for cultivating and manufacturing the produce of a hectare amount to \$56 81. This would give for 100 acres \$2,840, nearly; and for 400, which would be the quantity required for the largest establishments, \$11,830, to say nothing of the profits of the proprietor or leaseholder, when he and the laborer are one and the same. In this case, besides getting pay for his labor, and the rent or interest of his land, he would receive \$38 profit per acre. Wages will be higher in America, and the profits of the laborer and proprietor still more encouraging. In one manufactory which I visited, two-thirds of the hands were women, who are paid much less than men; but there is no reason why it should be so, for they do just as much work and just as well as men. They do the principal part of the weeding and dressing of the crop every where.

The company ought to send out their orders and funds for purchasing seeds pretty soon after the receipt of this letter. The price here is stated at thirteen cents per pound, but the general price for the season is not yet fixed. It is usually as regular as that of wheat, and I presume will settle down at something less than the above. The transportation to Dunkirk, a convenient place for embarkation, would be three or four dollars for one thousand pounds. This would be enough to sow one hundred and sixty-six acres. A drill for the sowing would cost \$110,* but I have heard of a new instrument, which is said by some to be better, and will not cost above \$20. The most material point in sowing is the manner of ploughing. The land must be ploughed eight inches deep at least, and this ought to be done in the month of August. Still fine crops of beets have been obtained by breaking up grass ground in the spring immediately before the seeding. The land should be turned up handsomely, and all the grass and other vegetable matter fairly deposited underneath. Then it must be harrowed deep and fine, but the same way with the furrows. If the furrows be disturbed, it spoils or greatly injures the crop. The seed is to be sown in rows, twenty inches apart, on the top of the furrows, and the same way with them. No plough must enter after the sowing, but the land must be dressed two to four times, according to its tendency to weediness, with the hand and hoe. The vegetable matters decay, and give their whole nour-

* The drill of Bement, of Albany, which costs but \$10, would answer equally as well.—*Editor Farm. & Gard.*

ishment to the beets. I suppose these remarks may be of less consequence to the proprietors of rich prairies of the West, than to those of the lands in France, and in Northern and middle States of America. There can be no doubt, however, that the decomposition of fresh vegetable matter will afford a more active stimulus to vegetable life than old mould, however rich. The land for beets must be *good*, but it may be too good. In this case it will produce beets of an enormous size, but hollow and decayed, and affording less saccharine than much smaller ones. Very poor land, made rich by manuring, is said to yield large beets, containing a great deal of potash and sal ammoniac, but very little sugar. At the first weeding, when the beets are about one or one and a half inches high, they must be thinned so as to leave one plant to every twelve or thirteen inches of row. If there be spaces where the seed has not come up, some of the plants pulled up should be transplanted into those spaces. There are some other considerations which it is material to suggest to you at this time. The first is the necessity of providing seasonably a store of *good bones*. In the proper making, washing, and otherwise cleansing and reburning of animal coal, consists the soul of a beet sugar manufactory. The best bones are those from kitchens, meat shops, dead horses, and other dead animals thrown away. A Frenchman would make his fortune out of the dead hogs and dead dogs which float every day in the East river. Fresh bones are the thing. Those which have been bleaching a good while in fields and highways are very nearly worthless. Those who intend to make beet sugar in the United States must look beforehand to the collection of bones. If they should have more than they want, which is scarcely possible, they will have sufficient demand for the surplus. The profits of the manufacture of animal coal, though constantly declared to be little or nothing, are, nevertheless, carefully concealed. Bones are bought here at from half to one cent per pound.

A great deal of lime is used in the operations of the sugar manufactory, say from a peck to a bushel per day. It is well for manufacturers to make their own. It must be of finer quality than that used in masonry. The lime manufactured from the chips and waste pieces of marble is considered the purest of any, made on a large scale. The convenience and economy of having your work situated upon navigable water will not have escaped the attention of yourself and associates. An abundance of pure water is required by a beet sugary, (*sucrerie*, the word commonly used by the French.) This may be taken from a river or canal, if it be clean. Here it is generally taken from wells with forcing pumps worked by steam. The reason is, that the waters of the rivers and canals of this country are very dirty. In the manufactory where I have hitherto been, the quantity used is about 15,000 gallons per day.

Seasonable provision must be made of bricks or wood for a building 150 feet long, 50 wide, and 20 high. Besides this, there will be a low part for a steam engine, for a furnace to re-burn the coal, and a kitchen where part of the utensils must be washed every day. This will be of the above length, and 15 feet in breadth. I am not yet

satisfied what is the best plan for a building. I give the above dimensions as embracing sufficient materials for any form. I may hereafter think that it would be better to increase the height and diminish the length. The walls should be thick and substantial, but clay mortar and second quality of brick are used.

The steam engine can be made as well in the United States as any where. It will be sufficient if the boiler be of 40-horse power, and the machine 12. Perhaps in the course of three or four years we should want greater powers; but, in that case, an exchange or sale could be easily made, and greater substituted, when operations are suspended, as they will be of course, during the spring and summer. Such an engine would be sufficient for working up 10,000,000 lbs. of beets per annum, producing not less than 500,000 lbs. of sugar. The engine ought to be delivered and the buildings commenced by the first of next July, if you intend to go on this year. I shall send drawings of an engine when I address you again. Several months later than July would be better than to let the year go by without beginning. If working were commenced this year, although little were done, every thing would be in readiness to go at it better next year, and you would proceed with confidence and satisfaction to make a large crop of beets. If no more were accomplished this year than merely to get together the utensils, set up the machinery, and make a fair trial of them for one week, it would be well worth the interest of the capital for one year, in the increased confidence, facility, and punctuality which it would impart to all the operations of the ensuing year. There are seven months from the last days of August, (at which I should prefer to begin,) in the very last week of which you might make the experiment of which I speak, and enable yourself to detect any faults or deficiencies, and remedy them against the coming year.

There are portions of the machinery which it would perhaps be advisable, if not necessary, to procure in this country, in order that they might be good, and serve as models to mechanics who have no experience in the matter; thus American mechanics would be able to execute additional ones as they should be wanted. I will name the principal articles which would be indispensable to a beginning on the smallest scale, suppose you to procure the steam engine in the United States. They are those which could not, I think, be well made in the United States, nor made in any manner there without great delay, trouble, and, in all probability, greater expense than would be incurred in getting them here: 1 rasp, \$200; 2 presses, \$1,200; 1 table, \$75; 1 desiccating kettle, \$250; 1 evaporating trough, \$200; 1 boiler, \$150; 1 cooler, \$100. Total, \$2,175.

I would also suggest to the company that I be authorized to engage one or two good workmen. They could be had for less than a common laborer in the United States, and they are willing to make considerable sacrifices for the sake of getting to our country.

And now, my dear friend, I believe I have said as much as is needful at this time. I shall address you again at no distant day. I propose to continue in this place about three months, and return to the United States in all of May and June. It is my wish, not only to perfect myself

in all the operations of the beet sugary, but also to observe the *several systems* which exist, and compare them with one another. I shall return to the United States by way of England, chiefly for the purpose of conferring with an eminent chemist, who has kindly proposed to instruct me in a new method of refining, which he has discovered and patented.

I am affectionately, your friend,

D. L. CHILD.

GEO. KIMBALL, Esq.

[From Poulson's American.]

BLAST IN PEAR TREES.

At the April meeting of the Pennsylvania Horticultural Society, the following communication was received:

The undersigned would respectfully inform the society, that he has known to be practised with success the following method of preventing the blast or blight in this delicate and useful tree. It is by merely *cutting out* a strip of the bark of the tree from the trunk and from the lower limbs, of the width of a half to a quarter of an inch, or greater, according to the size and age of the tree. When cut from the trunk, it is not necessary that the excision should be more than one third of the length, but longer in a very vigorous stock would not be injurious. This operation should be made about the middle of June, if the weather be very warm, and if not, should be delayed until August. The *rationale*, or supposed rationale of this operation, is founded on the supposition that the sap of that tree, which is known to be remarkably abundant at that period, is affected by the heat of the sun, and the person making the experiment on touching the woody part of the stock will readily suppose there may be some reason for that idea, as it will prove to him that the sap and stock, particularly the former, are very much heated. It is proper to state the above is not considered as a discovery of his own or of his father, as the preventive was communicated to the father of the subscriber by the late Stephen Girard, esq., who practised the same with uniform success. I do not know that an operation of this kind in the month of June or July would save the tree from the effects of heavy frosts, but think it probable that a bare *incision* made in *December* might have the same beneficial result.

April 10, 1837. JESSE Y. CASTOR.

N. B. Mr. Girard thought a covering of cloth and liniment necessary, but experience has shown that precaution is useless.

J. Y. C.

P. S. All persons possessing information on the above subject, are respectfully requested to communicate with the society.

HOW TO IMPROVE A POOR FARM.

Richard A. Leonard, of Middletown, N. J. has furnished us an interesting account of his manner of improving a worn-out farm, and of the sale of its products the last year; and we regret that from the great accumulation of matter on hand, we cannot give his letter in detail. We are obliged to content ourselves with a brief abstract of material facts.

Mr. Leonard came into possession of 90 acres of cultivated but exhausted land in May, 1833. In that year the sale of its products amounted to \$550 88; in 1834, the sales amounted to \$718

05; in 1835 to \$1,125 04; and in 1836, notwithstanding the unfavorable season, and the failure of most of his staple crops, to \$1,166 18—thus more than doubling its products, by judicious management in three years. His expense during the last year, for labor, dung and freight, amounted to \$254 72—thus leaving him a nett profit on his farm of \$912 41—or more than \$100 per acre per annum. We will quote Mr. Leonard's statement of the means he adopted to thus double the fertility of his soil.

"My farm," says he, "was in so low a condition that it would not produce more than ten bushels of rye, or twenty of corn per acre; and as I had no other income but what I could make upon this poor farm, I set about farming in earnest. I found it was in vain to attempt improvement without manure, so I contrived to get about 400 loads a year, 300 of which I made in the following manner. I have marl, though of very inferior quality. I cart about 100 loads of this into my barn yard, and by yarding my cattle upon it thro' the season, contrive to increase it to 200 loads. I also cart about 50 loads to my hog pen, on which I keep my hogs the year round. In this way I got 100 loads more, which is excellent for potatoes, corn, &c., and as my farm is situate near the bay, I obtain from New York annually, from 50 to 75 loads of the best stable dung, at about \$1 per load on delivery, and by mixing it with the earth, &c. made up the 400 loads. By this treatment, I find my land improve rapidly, and my income in like proportion. But I am sorry to say there are many farmers among us who are still pursuing the old land-killing system, scarcely making both ends meet. I might say something concerning the beneficial results of underdraining, and of lime as a manure; but I conclude for the present."

This communication affords a worthy example of prudent industry and good management, and shows that even a poor farm, well managed, may be rendered more productive than many a good farm now is, under bad management.—*Cultivator.*

MANURE.

A Virginia farmer makes the following remarks upon the mode of carrying out manure:

As soon as the winter stock of my manure, or any part of it is ready to cart out, I start my manure carts (unless the ground is wet) to carrying on the land intended for corn, and get as much out as I can before I plough the land; which is spread and ploughed under the sod. If I have any of the previous summer manure left on hand, I prefer to spread it on the fresh ploughed land, and harrow or lightly plough it in, on account of its being better rotted.

I generally have a bit of ground to sow in oats in the spring, upon which I carry out my early summer manure after harvest, and then fallow the same for wheat.

When my corn land is ready for seeding (which never is until I have the corn and stalks off the ground) my carts begin to carry out so much manure as may be on hand, to the poorest parts of my corn land and continue until I am done sowing, which is generally late; as I wait to get the corn hauled off the ground, I am unable to commence as soon as my neighbors on that kind of land. It will not do when I have furrowed and

dressed off my wheat lots to be running carts in for corn and stalks.

As to the best mode of giving manure to land, my opinion is, that it will be found in applying it to the preparation for the wheat crop, but the prudent farmer must give it to something just as fast as he can make it ready, else not only is the interest lost, but a good per cent. of the principal also.

I would here suggest an improvement in the plan generally pursued in carting out manure upon the land. It is this—when I am about to commence the manuring process, I provide myself with an armful of small sticks, three or four feet long, newly split out, that they may be more readily seen by the carters, which I stick down about on the ground to be operated upon, one where every load is to go. Thus if the land is poor, and I design to put 50 loads to the acre, I fix that number of sticks, regularly according to the need of the land as I myself may judge. Thus I can lay off two or three days' work for as many carts any time before hand that suits me. This I think is better than the common mode hereabouts. The carter is directed to carry out upon a certain hill or otherwise as may be—he perhaps puts some about—on ground that would require fifty loads, he puts twenty; and on land that would have done with twenty, he puts fifty loads at unsuitable distances from each other; then, after hands are sent to spread the manure, perhaps a week or two before the plough goes, and with sticks and hoes, they pull the piles about a little, giving to some spots too much and others none; and the consequence is a very irregular crop.

In order to do this spreading business well, (and no business of the farmer is more important) every hand should be provided with a long handle shovel; then at a throw, they can easily spread to the half way distance between the piles.

[From the New York Star.]

WONDERFUL DISCOVERY OF MECHANICAL POWER.—Several of the papers have referred to an immensely important application of magnetic power, which can be applied with great safety to the propelling of steamboats, locomotives, or to any branch of manufactures, requiring power of an inexhaustible character. Mr. Thomas Davenport, a blacksmith of Vermont, is the inventor, and Professors Silliman and Henry both speak in high terms of the improvement and its application. Mr. Davenport has associated with him Mr. Ransom Cook, of Saratoga Springs, who has suggested many improvements in this surprising invention; and we believe all that is required is means to carry out this novel application. And where would steamboats, and steam batteries and engine have been in this country, if Fulton and Chancellor Livingston had not expended their own money to carry out the bold project? This new power is safer—no danger, no explosion, no fuel, very little expense, and immense expedition. The editor of the New Era, a scientific man in these matters, has the following practical illustrations in his paper this morning.

1. We saw a small cylindrical battery, about 9 inches in length, 3 or 4 in diameter, produce a magnetic power of about 300 lbs., and which therefore we could not move with our utmost strength. No 2. We saw a small wheel, 5½ inches

in diameter, performing more than 600 revolutions in a minute, and lift a weight of 24 lbs. one foot per minute, from the power of a battery of smaller dimensions. 3. We saw the model of a locomotive engine, travelling on a circular rail road with immense velocity, and rapidly ascending an inclined plane of far greater elevation than any hitherto ascended by steam power. And these and various other experiments which we saw, convinced us of the truth of the opinion expressed by Professors Silliman, Renwick, and others, that the power of machinery may be increased from this source beyond any assignable limits. It is computed by these learned men, that a circular galvanic battery, about 3 inches in diameter, with magnets of a proportionable surface, would produce at least an hundred horse power, and therefore that two such batteries would be sufficient to propel ships of the largest class across the Atlantic. The only materials required to generate and continue this power for such a voyage, would be a few thin sheets of copper and zinc, and a few gallons of mineral water.

Whilst the cost of this new motive power is merely nominal, it is perfectly safe and manageable. There is not a possibility of any shock or explosion, and the whole machinery might be conducted by a child. We hastily announce these important features of this incalculably important invention, preparatory to a more scientific and practical elucidation.

STALL FEEDING, vs. YARDING.—Mr. Chapman, of Linwood farm, Rhinebeck, has sent us a communication in reply to A. B. C. against stall feeding. He gives it as his opinion, matured by 30 years' experience on both continents, that cattle will fatten with greater facility, and less expense, in the stall than in the yard. He says stables should be well ventilated, and frequently cleaned and well littered; and that the cattle should be regularly fed and watered. In laying on fat, he thinks a moderate degree of warmth, so as to cause a slight perspiration, and a variety of feed, contribute essentially to this object. He stables all his cattle, except the year olds. The manure is deposited in piles at the stable doors, and every few days removed to the fields where it is to be used for summer crops, and deposited in long heaps.—*Cultivator.*

Cotton Seed Oil.—Among the many discoveries and improvements in the arts of the present age, is that of manufacturing Oil from the Cotton Seed as a substitute for Spermin Oil. The seed is first hulled and then pressed out, and the oil is then clarified. This oil has been tested in Philadelphia and Burlington, and found to be superior in more than one respect, to the Spermin oil. It burns with a clear brilliant light color, and is less affected by cold than the oils generally used. It has also been found to be good for paint oil. The oil bran is very valuable for feed, and thought to be equal to the linseed bran or oil cake. A charter has been obtained from the Legislature of New Jersey, and it is expected that an establishment for manufacturing the oil will go into operation the ensuing summer, either in Burlington or Gloucester county.—*Farmers' Cabinet.*

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 50	1 75
CATTLE, on the hoof,	100lbs	7 50	9 50
CORN, yellow	bushel	85	86
White,	"	80	
COTTON, Virginia,	pound		
North Carolina,	"		
Upland,	"		
Louisiana 20a21-Alabama	"		
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's,	"		
Do. do. Superfine, ex.	"	8 75	8 50
SuperHow. st. in good de'd	"	9 00	
" " wagon price,	"		
City Mills, super,	"	8 00	
Do extra,	"	8 25	
Susquehanna,	"	9 00	
Rye,	"	6 50	6 75
Kiln-dried Meal, in hhds.	hhd.		
do. in bbls.	bbl.		
GRASS SEEDS, red Clover,	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"		3 00
Tall meadow Oat,	"		2 75
Herds, or red top,	"		1 25
HAY, in bulk,	ton.	15 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" " water rotted,	"	7	8
Hogs, on the hoof,	100lb.	6 25	6 50
Slaughtered,	"		
HOPS—first sort,	pound.	17	
second,	"	13	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	45	46
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.	4 87	
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	90	
Susquehanna,	"		none
TOBACCO, crop, common,	100 lbs	2 50	3 00
" brown and red,	"	3 50	5 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
" for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"		
" ground leaf,	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.		
Red, best,	"	1 40	1 50
fair to good 100a130, inferior	"		
WHISKEY, 1st pf. in bbls.	gallon.	38	sales
" " in hhds.	"	35	do
" " wagon price,	"		bbls
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	
To Wheeling,	"	1 75	
WOOL, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do,	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

REMARK—The prices are but nominal, as there are but few transactions.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	11	12
Shoulders, do.	"	11	11½
Middlings, do.	"	do	do
Assorted, country,	"	8	
BUTTER, printed, in lbs. & half lbs.	"	25	37½
Roll,	"	25	31½
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	5 00	7 00
Cows, new milch,	"	26 00	40 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.		
CHOP RYE,	"	2 00	
EGGS,	dozen.	18	
FISH, Shad, No. 1, Susquehanna, ..	barrel.		
No. 2,	"		
Herrings, salted, No. 1,	"	2 75	
Mackerel, No. 1, —, —, —, No. 2	"	9 50	10 00
No. 3,	"		5 50
Cod, salted,	cwt.	3 00	3 25
LARD,	bound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virgin. 2
Branch at Baltimore, do	do	Bank of Virginia, do
Other Branches, do	do	Branch at Fredericksburg do
MARYLAND.		Petersburg, do
Banks in Baltimore, par		Norfolk, do
Hagerstown, ¾a		Winchester, 2a2½
Frederick, do		Lynchburg, 2½
Westminster, do		Danville, do
Farmers' Bank of Mary'd, do		Bank of the Valley, .. 2
Do. payable at Easton, ... 1		Branch at Romney, ... 2½
Salisbury, 2 per ct. dis.		Do. Charlestown, .. 2
Cumberland, 2		Do. Leesburg, 2
Millington, do		Wheeling Banks, 4
DISTRICT.		Ohio Banks, generally 6a7
Washington, } Banks, ¾p.c.		New Jersey Banks gen. 5
Georgetown, } Banks, ¾p.c.		New York City, 1
Alexandria, } Banks, ¾p.c.		New York State, ... 6a7
PENNSYLVANIA.		Massachusetts, 3a3½
Philadelphia, ¾a		Connecticut, 3a3½
Chambersburg, 1		New Hampshire, ... 3a3½
Gettysburg, do		Maine, 3a3½
Pittsburg, ¾a		Rhode Island, 3a3½
York, 1		North Carolina, 6
Other Pennsylvania Bks.		South Carolina, 8a10
Delaware [under \$5] 6		Georgia, do
Do. [over 5] 2		New Orleans, 15
Michigan Banks, 10		
Canadian do. 10		

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the county. It is remarkably healthy and hardsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; CASH will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to EDWARD P. ROBERTS, Baltimore, Md.

13,000 MORUS MULTICAULIS TREES.

The subscriber has received 13,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t. Baltimore, Md.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each,

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER and GARDENER, North-east corner of Baltimore and Charles streets, Baltimore, Md.

April 18, 1837.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herds Grass Seed. J. S. EASTMAN.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution. ap 4 J. S. E.

CONTENTS OF THIS NUMBER.

Recommendation to the Beet Culture—notice of a valuable essay on deep ploughing—of sewing Silk—Ruta Baga culture—editorial correspondence—large Swine—destruction of the Grub Worm—South Carolina and her agricultural interest—honor to practical agriculturists—rot in Cotton—the great error of American agriculture exposed, and hints for improvement suggested—the advantages of deep ploughing illustrated—interesting letter on the beet culture—blast in Pear Trees—mode of improving a poor farm—do. of distributing manure—wonderful discovery of mechanical power—advantages of stall feeding—uses of cotton seed oil.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 5.

BALTIMORE, MD. MAY 30, 1837.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 30, 1837.

An esteemed subscriber residing near Colbyville, Kentucky, in sending us three new subscribers, makes the following friendly remarks, in a letter to the editor:

"I am afraid that reducing the subscription price of your paper will have a tendency to diminish your profits from it. I should very much regret your being injured by your generous efforts to spread agricultural knowledge."

The kind feelings of solicitude for our welfare evinced towards us in the above extract, accompanied as they were by *three solid evidences of sincerity*, did not fail to inspire us with emotions of gratitude; and while we return to our friend our heartfelt thanks, we would be indulged with a few remarks. When we determined to lower our subscription price, we did so under a full knowledge of the responsibility we assumed. We honestly desired to place the work within the reach of every one who might wish to read, because we believed then, as we do now, that every one engaged in cultivating the earth could always find something in our journal which would be of advantage to him. As the repository of the thoughts of practical men—as the record of the practice of those competent to instruct, we believed it impossible that it could operate otherwise than to the general good; that, as agriculture, like all other sciences, was progressive, the experiments of each day would necessarily unfold to the observant mind, truths, which, in their operation upon the interests of its followers, would be productive of infinite good. Looking at the subject in this light, and being devoted to the pursuit, we were willing to risk much individually, in order that we might place ourself in a position to be serviceable to those for whose well-being we felt so warm and abiding an interest. It was remarked of old, that the man who would

not jeopard his own for his country's good, was a bad citizen and poor patriot, and without any ascription to ourself of any extraordinary degree of love of country, we may be permitted to claim for our motives at least an exemption from those sordid impulses which look not beyond self.

But why should our excellent friend fear that the reducing our subscription price, would have a tendency to diminish our profits? Has he not in his own generous example, taken a most potent step to prevent the evil he dreads? And here, with pleasure let us tell him, that the act, by which he has thus placed us under obligations, is not without companionship; many others of our patrons having been influenced by similar feelings towards us. Though we have made no claims upon any, we did indulge in the hope, that as there is a community of interest between the conductors of a journal and its patrons, so there would exist a kindly feeling on the part of ours, that would at least duplicate our list; but should the laudable act of our Colbyville friend, and those of many others, who have generously responded to our appeal, be as general as we hope, so far from our profits being diminished, they will be greatly increased. And as it is not in our nature to judge men by any other rule than that we could wish to be applied to ourself, we look forward to our experiment with feelings of confidence and hope, and shall await the result with that fortitude which conscious rectitude never fails to impart.

From what we have learnt recently by letters and conversation, we are inclined to think, that the wheat crop will be much better than was anticipated by many. Wherever the frost has not been too destructive, the growing crops have been greatly improved by the rains of the present month, and indeed, where that enemy to fall grain has been most rife, great good has been effected by the delightful showers of which this month have been so prolific. Should June prove favorable to its ripening, an average crop of last fall's sowing, may be expected, though the aggregate quantity, we fear will be much less than that of former years, a greatly reduced quantity having been seeded, in consequence

of the difficulty of getting good seed last autumn. We are pleased to learn that the spring wheat sown in this state, generally looks well, and justifies the hope of good yields.

Potatoes—It is time that farmers were bestirring themselves to get in their crops of fall potatoes, and as there is no root more conducive to human sustenance, or to the comfort of stock, than this, we take this timely occasion to remind our agricultural brethren of the policy of putting in an extra quantity.

THE CROPS.

Extract of a letter from an esteemed correspondent residing near Colbyville, Kentucky, dated May 15th:

"Our wheat crop suffered severely last winter, but is beginning now to look tolerably well, wherever enough has remained in the ground, much being thrown out during the winter."

From another, dated Carlisle, Pa. May 22:

"The late rains have so much improved the appearance of the wheat and rye in this section of the country, that I am induced to believe we shall have a fair average crop."

From another, dated Charlestown, Jefferson co. Va. May 20:

"We have had a remarkably cold, dry spring, and vegetation of every description very backward. It is now doubtful whether there will be as much wheat raised in this county as will afford seed and bread. I do not know a farmer that has not ploughed up more or less of his wheat for oats and corn. There is three times as much oats sowed this spring as last, and farmers who were in the habit of planting thirty and fifty acres of corn, heretofore, are now planting from seventy-five to two hundred and fifty."

The beginning of good—We insert with feelings of unmingled pleasure the following paragraph. It contains a fact that conveys to our mind the sure evidence of an awakening spirit that must ultimately redound greatly to the interests of the agricultural community, not only on the eastern peninsula of this state, but elsewhere. For ourself, we trust the influence of this example will penetrate into the remotest regions of our country, and that in every county kindred associations may grow up and prosper.

AGRICULTURAL SOCIETY.—The citizens of Dorchester county, Md. have formed an agricul-

tural society for that county, and to be extended to the Eastern Shore. The first exhibition will take place at Cambridge on the first Thursday and Friday of November next. We are much pleased to see our neighbors waking up to this matter.—*Delaware Gazette.*

RIDGING.

Soils for root crops should always be rich and deep enough to require no ridging; but when a soil is fertile and shallow, better crops are frequently raised by throwing it into ridges than leaving the surface flat, because in this ridge the fertility is accumulated. Hence some have supposed that ridging should be performed in all cases.—*Genesee Farmer.*

The manner of cultivating Ruta Baga and Mangel Wurtzel in Europe, has familiarized those who have grown them in this country with *ridging* for either of these crops; but we confess we are not satisfied as to the propriety of that mode of culture, except under peculiar circumstances of locality. In England, where from the extreme humidity of the climate, there is no danger to be apprehended from exposure to the rays of the sun, ridging may be of great service in concentrating the manure in the immediate vicinity of the growing plants; but in most parts of this country, we think the practice injurious, inasmuch as the plants from their elevated position are subject to suffer from drought. If a concentration of food for them be the great object to be attained by ridging, that can be equally as well affected by placing the manure in a furrow, covering it over, smoothing down the surface to a level, and planting on the top in the centre of the manure.

Most all the authorities prescribe the ridge form for the culture of these roots; but those who have done so in this country, have not, we apprehend, considered the difference in the climates of this country and those of Europe where they are grown. Last year, our Ruta Baga was grown on a fine rich loam, with a southern inclination and exposure, and we do know that they suffered from solar influence, and taking counsel from experience, we shall give them *this season* a flat surface, believing it better adapted to our climate than the ridge form.—*Ed. Farmer and Gardener.*

To promote the growth of Trees—Some separate the dry bark of fruit and forest trees, to promote their growth and prevent the bark binding too much. This disfigures the tree, making seams in the trunk, and makes it grow in angles. The best way is, when the sap is forced up by warmth of spring, to scrape off all the scaly particles of the dead bark, and wash the trees repeatedly during the week with soap-suds, &c.* Trees of considerable age will then have a youthful appearance, be more thrifty; and in case of fruit trees, the fruit will make more cider than that grown on scurvy moss-grown trees.

Put cinders, bones, or stones,† about the roots of pear trees; it will increase their growth one-third and save them from blight.

[*If the trees be first white washed, and after an interval of a few weeks, soap suds impregnated with sulphur, be applied, the best results will accrue.

† Coal ashes, or tanners' bark, are equally good.
Ed. Far. & Gardener.]

CULTURE OF THE PEACH.

Wilmington, April 5th, 1837.

Gentlemen—I have cut the enclosed article from the Hamilton Intelligencer, and believing it highly important to the public, request its publication in your paper. I believe it is from the pen of Judge Milikin, of Butler county, Ohio.

He is a practising physician of age, and much experience with regard to the subject on which he writes. I do not consider myself skilled in the science of horticulture, but from observation, have long known the existence of the facts, for which the writer gives us philosophical reasons in their support.

B. HINKSON.

Peach Trees.—I frequently hear complaints through the country, that it has become almost impossible to cultivate the Peach tree. It is likewise remarked, that the fruit does not possess the same rich flavor that it did some years ago. I believe it to be a fact from my own observation, that we have no longer the pleasure of eating that delicious fruit, with all the fine flavors that it possessed in former times. There must be some natural cause for this failure. The climate has not changed. The sun has not ceased to shine.—Rains and snows descend as formerly. Why then does the Peach tree not live, flourish, and fructuate?

I have frequently heard it remarked, that the Peach tree would only do well in newly settled countries, where there was nothing but it and uncultivated fruits. The observation is correct in part, that it only does well in newly cultivated lands; but why the orchardist and farmer have not examined, or have not chemically inquired into the cause of the death of the tree and failure of its fruit, I know not. The only subject to investigate in this inquiry, is the situation the soil is in when the peach tree is thrifty and bears well, and the mode and manner of keeping the soil with the same constituent properties. We see that it is necessary that the sun should shine on the tree and fruit in order to give that flavor which we so much admire. If the tree is in the shade, we find that there is an excess of acid in the Peach which renders it unpalatable—abounding with a watery fluid. It therefore becomes necessary, that at least a part of the day's sun should shine on the tree and its fruits, to concentrate the fluids. Further, we find that there is but one kind of soil that the peach tree will live in, for the ordinary length of time they will live in *congenial soil*, that has been under cultivation any number of years (say 20 or upwards,) and that is a *reddish clay soil*, which holds a goodly portion of *iron* in solution. This fall I ate finely flavored peaches from trees that were more than twenty years old. The trees had been planted

and raised in the above described soil. In all new cultivated lands, we know that there is going on continually a decomposition of vegetable matter, say from the leaves that have fallen from time immemorial, rotten timber, and the decaying of the root and stumps, &c. Our next inquiry will be, what effects are we to expect from this decomposition? One is, we know, that about old buildings and rubbish of all kinds, the earth is always saturated with *saltpetre* or *nitre*, held in solution (as both names are applied to the same article.) The earth being measurably saturated with nitre, the tree is favored with a nitrous dew; for nitrous acid will abound where nitre is held in solution. There must, also, be what chemists call the "*Hydrogen Gas*," for they say that it has an active part to perform in the decomposing of vegetable substances, together with other gases. If it is a fact (and I believe no one will deny it,) that those gases are necessary to be in abundance, or that the atmosphere ought to be surcharged with them, for the preservation and active growth of the tree and its fruit more than for any other fruit tree, all we have to do to have our trees preserved to longevity, and have as rich, delicious fruit, as formerly, is to generate those gases which appear so essential. This may be done in the following manner: When we have trees planted in a grassy soil, we ought to denude the root of the tree by taking off the top soil for some distance around the tree (say one yard) so deep as to destroy the root of the grass; fill that vacancy with leaves, rotten logs, chips, or tanner's bark. The latter, I think, will answer, though I would prefer the chips, or rotten wood, to any thing else, for they will not produce so much moisture as tan bark, and as the ground where grass grows is measurably deprived of its nitre, and is cold, the chips or rotten wood will generate nitre, warm the ground, destroy the gluten in the soil, and the earth from freezing, thereby preventing the trees being killed by the frosts of the hard winters. By doing this, you have the soil for your trees in nearly the same situation to nurture them, that the soil of new cleared land is in. When trees are young—recently planted, and no sward or grass around them, I am clearly of the opinion that the tan bark will answer all purposes; that by the time the tree grows to any size, the bark will be decomposed so as to furnish a sufficient quantity of nitre and gases to answer all purposes for the benefit of the trees. I would advise a renewal of the chips, wood or bark, as often as necessary, to keep the roots warm in the winter and to prevent the growth of grass, always putting it on over the preceding coat. I would also advise the disuse of the pruning knife, after the transplanting of the trees. I would prefer letting them grow as nature directs, for whenever the bark is broken, a gum exudes from it, impoverishes its juices, and the tree then begins to decay. To prevent worms and other insects from getting about the roots of the trees, sprinkle sulphur around the body on the ground, and cover it with a small quantity of earth, to prevent the wind from blowing it away. This should be done in the month of April. The bodies of the trees may likewise be painted with sweet milk and sulphur, which will effectually destroy all insects that wound the bark. When cater-

pillars are troublesome to your fruit trees, take a panful of live coals, hold it under that part of the tree which they are upon, sprinkle sulphur or brimstone on the coals, and the fumes will entirely destroy them.

I have dropped a few hasty remarks—perhaps enough to induce some abler pen to do the subject justice.

AGRICOLA.

[From the Southern Agriculturist.]

MEDICAL BOTANY OF S. CAROLINA.

Dear Sir,—The obligations which we are under to the aborigines of America for some of the most valuable discoveries of the medical properties of many of our indigenous plants, are not sufficiently known or appreciated by us. It is my intention to offer to your readers, through the medium of your most valuable publication, the *Southern Agriculturist*, a series of numbers, pointing out such of those discoveries as have come within my own observation, and which have been tested by me and proved to be invariably efficacious in all cases in which I have either prescribed it, or used it in my practice. As rheumatism is a prevalent disease in this and several other States in the Union, I take leave to occupy this number, with an account of the Indian Vegetable Specific in the treatment of rheumatism, contraction of the joints, &c.

About fifteen years ago, an industrious young married lady, from her exposure to the morning and evening dews in attending to her cow-pen, was attacked with a violent rheumatism in her arms and legs; the best medical aid that the district at that time afforded, was obtained for her, and for six years their utmost skill was exercised without effect: by this time the fingers of both hands and the toes of both feet were so contracted, and the wrists and ankles so distorted, that she could use neither, nor could she wear shoes; her case was considered desperate, her physicians pronounced her case hopeless, and ceased their further attendance.

Her paroxysms of pain were now very severe, and her cries of distress were heard to a great distance. About this period, a deputation of Indians on their way to Washington, to obtain the provisions made for them by the government, took this district in their route to the seat of government. Arriving at the boundary of the district, one of their head men observed, this is a very poor people, and if we keep together, they will not be able to feed us all, let us divide and take some of the richer districts in our way, and after so many days, let us meet again at a certain rich settlement, where we may travel in a body again. This arrangement was readily acceded to; and it appears as if a kind Providence, directed the wise man or doctor of the nation to select this poor district as the most direct route for his journey, and to the cabin of the afflicted sufferer: he hailed the house-keeper, and the husband of the lady went to the gate, when the Indian requested him to give him a meal of milk and homminy. The gentleman invited him in, and set before him a meal, such as his straightened circumstances afforded.

While the Indian was enjoying his repast, a paroxysm of severe pain seized the sufferer, and the groans and cries aroused the feelings and at-

tention of the Indian. Turning round, he observed an emaciated female in a bed at the opposite end of the cabin, and inquired of the husband what was the matter with the lady? She has been violently afflicted with the rheumatism these six years, was the reply of the husband, and our doctors can't cure her? O no,—well brother, I will cure her in three days, suppose you let me stay with you so long, and can give me any thing to eat. The husband assented; and as soon as the Indian finished his repast he arose, went into the woods and collected a sufficient quantity of the herb, with which to effect a cure; returning to the house, he required half a pound of lard or fresh butter, which being furnished him, he prepared his ointment, with the herb collected, and on the approach of night he directed the husband to rub in, on the most affected parts, the size of a large Cherokee plumb of the ointment, and that he should rub it until it was all taken up by the pores, then to wrap the parts thus anointed with warm flannel, and to repeat this process night and morning for three days; after rubbing the first time, the lady obtained the first comfortable night's rest she had experienced for six years: in fact, she fell asleep while her husband was rubbing the ointment on her contracted wrists and elbows; next morning on awaking, she said, "husband, dear husband, see here my arms and wrists are supple as ever." The case had been of so long standing, that it required nine instead of three days to effect a radical cure of disease. The Indian conscious of this, told the husband after the expiration of the third day, that as he was one of a number of Indians, on their way to Washington, but who had scattered themselves, and were to meet at a certain time and place to prosecute their journey to Washington, I see it will take more than three days to cure your wife, and as you have treated me kind, giving me milk and homminy, I will show you the plant, and you can make the ointment and cure her yourself. I assure you it will cure her. The gentleman went and was made acquainted with the plant, and when it was brought to the house, a lady who was a near neighbor of mine, and related to the sufferer, who was then nursing, on perceiving the happy effect of the remedy, was wise enough to secure a sprig, which she preserved in a paper, that she might hereafter recognise the plant by a comparison with the specimen.

In nine days the lady was radically cured, and had got out of bed, and resumed her spinning wheel to the joy of and delight of her husband and friends. They soon after emigrated to the Western country, and from letters received from them at various times, she is said to enjoy perfect health.

The elder Michaux, discovered this plant in his botanical researches in South-Carolina; and finding it as yet a nondescript, he named it *Ceratiola*, and as the species under consideration was of peculiar structure, having the leaves in the terminating axillæ of the branches verticillate, he gave it the specific name of *Ericoides*, i. e. Heath like *Ceratiola*. Mr. Ellicott followed him in his generic and specific characters. I have named it *Carolina Heath*.

When the family removed to Alabama, this relation, my neighbor, returned home and was kind enough to give me a few green specimens of

this invaluable plant; the lamented Mr. Noisette, as soon as I had opened the specimens, immediately recognised them, and pointed to their locality. They are a very hardy evergreen shrub, and were first discovered by Mr. Michaux, on the Sandy Island, near Murphy's Bridge, now M'lhenny's Ferry, over Edisto River; it grows plentifully on the Sandy Island above mentioned, and from there on many of the sand ridges between it and Columbia. I have found it since, to flourish on the margins of flat ponds in the District of Orangeburgh, viz. on the margins of Grimes' large Cypress pond, on a small flat Tupelo pond, at the west declivity of the Hygean Bridge, near Young's Cottage, on the Rail-Road, 59 miles from Charleston.

Very respectfully, yours, &c.

MEDICO BOTANICUS.

Hygean Bridge, District of Orangeburgh,
May 20.

CHOOSING SHEEP FOR BREEDING.

One of the two species of sheep, the long and the short woolled, having been chosen, as most appropriate to the situation, and wool being made an object, it is most advantageous to select such flocks as are pure as possible of the species to which they belong, and not a mixture of the short and long woolled breeds, which must generally produce an inferior fleece, disadvantageous to the manufacturer. Length of staple in the long, and fineness, elasticity and closeness in the short woolled fleece, will be the best guides in this case.

Whether the wool be long or short, the carcass of the animal ought to be amply and regularly covered; it is a great defect when the belly is bare, and a still greater when the wool is thin and open along the ridges of the back, admitting rain and moisture to a most susceptible part, indeed, to descend upon all parts of the body.

It is a piece of good old advice, to buy your rams a little before shearing time, if possible; and a very necessary modern addition to take the opportunity of purchasing at the farmer's house, while you see the animal in *puris naturalibus* and before he has been decked out and trimmed for show by the sheep barber. A thick fleece, covering all parts with as much equality as possible, containing plenty of *yolk*, or inspissated perspiration, in the object. If ewes, equally well bred, can be procured, the shepherd anticipates and reaps an immediate benefit; if not, he must patiently await improvement of his wool, through the medium of the superior blood of his rams.

At shearing time, examine the bottoms of the fleece, or the lower extremity of the filaments of wool; if it be *stichy-haired*, of mixed quality, or if the sheep have a coarse breech, or be not well covered, it must be rejected, as improper for a breeding stock, where it would perpetuate its defects.—The quantity of *yolk* or grease is a good proof of the thickness of the fleece, since by the closeness and thickness of the wool, the grease or perspirable matter of the animal is retained; hence fine, closed, curled wool has ever the greatest quantity of *yolk*.—*Bath Memoirs*.

Never defer to another day, that which should be done to-day—recollect that in farming much depends on doing things at the right time.

THE GREAT ERROR OF AMERICAN AGRICULTURE EXPOSED, AND HINTS FOR IMPROVEMENT SUGGESTED.

BY THOMAS MOORE.

(Continued.)

I can readily anticipate the remarks of our sticklers for old practices, on what has been advanced. This reasoning (say they) well applies to rich deep soils; but in poor shallow soils, "let him beware of the *yellow clay*, the *dead earth*, lest the value of his land proves to be the price of his too adventurous experiments." But let me ask them, have they never seen the effects of earths taken out of cellars and wells, when applied to poor land? have they never observed the luxuriant growth of grass and weeds, at the edge of a bank, taken from a mill-race, or large ditch, and frequently on the very top, when flat enough to retain moisture? for my own part, I have long been in the habit of observing these things, and do not recollect that I ever saw any earth taken from a considerable depth below the surface, which was capable of being pulverized by frost or tillage, without evident advantage, even when clay has been applied to clay, and sand to sand. Seeing this is the fact, is there any good reason for supposing, that, as we ascend toward the surface, such a difference will be found in the properties of the earth, that this will render the same land sterile, that the other will enrich? I confess I see none; I cannot even see, why we may not with propriety suppose, that the first six inches of earth next below the usual ploughing, should be possessed of all the fertilizing qualities, that the same kind of earth would be, if found six feet below.

It would seem then, that by this mode of cultivation (*deep ploughing*) on exhausted lands, the quantity of soil would not only be increased, but actually enriched. On lands, covered with two or three inches of rich mould, it will probably have a contrary effect in some degree, yet even in this case, the advantages resulting from an increase of quantity, will be found abundantly to overbalance the small abatement in quality.

Their prejudices, in all probability, have proceeded from injudicious experiments; very few planters break up ground in the fall; in the spring their teams are often weak, and were they disposed to plough a spot deeper than usual, would very likely choose to do it when wet, on account of its being easier performed; soon after which the crop is to be planted or sowed, which proves the worse for the experiment, and the planter is disgusted with the practice: he informs his neighbors of the ill success of his experiments; and perhaps, a whole neighborhood is thereby afresh confirmed in their former belief that the good old way is best—to plough as deep as they find black soil, and no deeper.

Ploughing land that contains a considerable portion of clay, in a state *too wet* to break, as the furrow leaves the plough, is, thereby, rendered more *compact*; and when hardened by the sun, becomes entirely unfitted for the production of vegetables; and is scarcely to be reduced by any succeeding tillage during the same summer; indeed, I believe, nothing short of a *winter's frost* will effectually *pulverize* it. The best devised system of practice, may be rendered entirely abor-

tive, by being put into the hands of unskilful practitioners to execute.

Lands that are to be ploughed much deeper than usual, ought to be broken up in the fall; and would be the better to be ridged, that more surface might be exposed to the frost; If omitted till spring, it ought to be done as soon as it becomes dry enough to break freely before the plough: No crop should be put in that season, that requires to be seeded before it can have several ploughings and harrowings at proper intervals; otherwise, the expectation of the cultivator will probably be blasted.

If, notwithstanding what has been advanced, I should be called upon for proofs—should be told that the evils complained of on one hand, are, in a great measure, ideal; and that the advantages proposed on the other, are theoretical, and remain to be confirmed by practice,—with respect to the first, it would, perhaps, only be necessary to say, —what further proofs need we, to convince us that the practice of agriculture, particularly in the southern states, is miserably defective, than the deserted old fields that so frequently present their disgusting surfaces from Susquehanna to Georgia? Some years ago I was of opinion, that this speedy reduction of soil, was altogether occasioned by the nature of the crops cultivated thereon; but, on attending more accurately to the subject, I am of a different opinion, and believe, as I have already said—it is more from the *manner of cultivation* than from the *exhausting properties* of the crops; of this, one thing has tended to convince me; I have observed, that when an industrious person, from another state or country, where the cultivation is generally *deeper*, has settled on these exhausted lands, that they frequently improve for some years; although the *same crops*, or those equally as *exhausting* are cultivated; and, instances I have known, of some of these old fields becoming very productive without manure.

Almost every summer furnishes abundant proofs of the great disadvantage of the practice of *shallow ploughing*, to both summer and winter crops; if we were but disposed to open our eyes and look for them. A very curious one lately happened on my own farm.

A field was sowed with wheat by a tenant, the ploughing from three to four inches; a deep hollow extended across part of the field, in a direction nearly east and west; the side exposed to the north tolerably good, the south exposure very rich; as might be expected, the wheat on the strongest soil made the most promising appearance in the fall, and also for some time in the spring; in the early part of which clover seed was sown on the whole, which came up well; a drought came on late in the spring; the south exposure *drying first*, the wheat soon showed the effects of it; and, the drought continuing, a considerable part entirely *perished*; the north exposure also suffered, but being more shielded from the action of the hot sun, was not so effectually dried. At harvest it was much the best wheat, notwithstanding the superior richness of the soil on the other side. A still greater difference appeared in the young clover; on the south hill side it was almost entirely killed, on the other very little injured.

I have had some experience of the beneficial effects to be derived from *deep ploughing*—but the

obstructions in most of my fields (particularly large stones just below the surface) have prevented my adopting the practice so fully as I could wish; yet the success that has always attended my experiments, in conjunction with my observations on the practice of others, has been conclusive evidence to my mind.

In the year 1795, I took possession of my present farm, and had a field ploughed for wheat, which had been thought for several years before, too poor to cultivate, either in wheat or Indian corn: I saw rye growing on the best part of it, two years before, just before harvest, that I think would not yield two bushels to the acre. It was ploughed early in the spring, about eight inches deep, and repeated with harrowings, at proper intervals, several times during summer; it was sown about the last of the ninth month. The soil being weak, the growth in the fall was slow, as also in the spring, yet regular, the colour always good, and no appearance of suffering, either from *drought* or *wet*; at harvest, the straw was not tall, nor thick on the ground, but the heads large and well filled; the product, between sixteen and seventeen bushels per acre, except a part of the field, sown with a kind of wheat I was not before acquainted with, which was too thin, in consequence of a short allowance of seed. I observed the state of the soil, from time to time, until *harvest*, and found, that even *then*, it was open and in good tilth, except a crust of two or three inches, next the surface.

In the spring of 1796, with a large plough and four horses, I broke up part of a field; I measured the ploughing frequently, and found it in many places eleven inches deep, and no where less than seven; so that the average was at least nine. This piece contained about four acres, on a gentle declivity; the surface too much exhausted, to pay for cultivating any crop in the common way: this ploughing brought to the surface about five inches of earth, that had never before been exposed, which was principally clay; at the upper edge of the piece, of a bright yellow, which became gradually paler, further down, and of a bluish appearance near the lower side. After several stirrings, it was sown with buckwheat the same year; the crop tolerable; after the buckwheat came off, the ground was ploughed and sown in rye, in the eleventh month, very little of which came up, owing, as I suppose, either to its being too late put in the ground, or the seed not good. It remained without further tillage until last year (1800) when it was again sown in buckwheat, which grew so large, as generally to fall. Before it was ploughed in the spring, I took several of my friends to see the difference in the appearance of this piece and the ground adjoining, that had lain the same length of time out of tillage; it was discernable to a furrow; the *deep-ploughed* piece appeared of a fine open texture, and *dark* colour, thick set with white clover; the adjoining ground, compact and hard, of a *pale* ash colour, bearing scarcely a blade of any other kind of grass, than that common to old fields, known by the name of *poverty-grass*: In short, one had the appearance of an exhausted old field, and the other of land lately manured. Those who expressed a sentiment on the subject, were of opinion, that to those who did not know what occasioned the difference, the *deep-ploughed* piece would sell for double the price of the other.

Part of another field, from having a very retentive clay near the surface, was of that kind called cold, or sour land; and was thought unfit to produce any crop; either water or ice generally appearing on the surface, in an open time in winter. This was so thick set with white flint-gravel and stones, that the first ploughing could not be deep; but having cultivated several crops on it, taken off the largest of the stones, and consequently been able to get a little deeper at each succeeding ploughing, the nature of the ground seems altered, so that now there is seldom either water or ice to be seen on its surface, more than is common to other places: It is now in red clover, very little of which has been injured by the late open winter. This piece has been manured; it is therefore, unfair to ascribe the quantity of the crops, which have been good, to deep ploughing only; though I am of opinion, that on such land, manures are not of much consequence without it.

I might have before observed, that one of the objections that will probably be made to *deep ploughing*, is the greater strength of team that will be requisite to perform it, and consequently an additional expense. This I believe, on consideration, will also be found to be without foundation. True it is, that the first ploughing requires more strength of team; but then it is equally as true, that if the plough is a good one for the purpose, almost double the quantity will be performed in a given time. The four acres above mentioned, was ploughed by four horses in less than two days; the furrows averaged seventeen inches in width. And as ground ploughed in this way will not acquire the same degree of firmness for many years afterwards, although it should remain untilled, it will be found, that three horses to a plough will be sufficient for after ploughings, even for a grass-lay; and that two such teams will perform as much in a day as six horses in three ploughs of the common kind, and of the common description of ploughing. Here then is a ploughman saved. In addition to this, it is to be remembered, that for reasons before given, land cultivated in this way, will be preserved in good tilth with much fewer ploughings than the other mode.

Thus, let the subject be considered on whatever ground we choose to take it up, either with respect to the preservation of the soil, the quantity of produce, or the quantum of labor bestowed, the advantage is greatly on the side of the method proposed.

But, let me again repeat it, that those advantages depend in great measure on the manner of performing it. It must never be forgotten, that ploughing when the soil is very dry, is of no other consequence than to destroy weeds; but when over wet, in stiff soils, the mischief is incalculable; it is at least irreparable for that season.

If any should be still disposed to condemn the foregoing observations untried—to say, that if those extraordinary advantages will result from *deep ploughing* that are ascribed to it, they certainly would have been long ago discovered, and the practice universally adopted; that a great proportion of the inhabitants of the United States, being engaged in the business of ploughing nearly one half of their time, it is not reasonable to suppose those things could have escaped their observation.

As a full answer to such, let me call their attention to some of the absurd practices that the best of our cultivators are just emerging from; and that probably they themselves remain in; let them view their own practice in these things, and then say, whether they feel that consciousness of perfection, that will justify them in condemning proposed improvements without trial.

Let them reflect a moment on the propensity that almost every planter feels for clearing a piece of land every year, which is very commonly continued until there is little or no wood left, either for fuel or fences; and very often it happens that in the latter stages of this erroneous conduct, more than half their cleared land is so far exhausted, as not to be worth cultivating; more acres of which, than they annually clear, it is amply within their power to reclaim and render as fertile as ever it was, and that with half the expense; yet strange to tell, every acre is neglected, while the clearing business is pursued with avidity, until at length, the fatal blow is struck and necessity compels them to part with their murdered estates for a trifle, and seek refuge in the Western country. Witness, some of the lower counties of Maryland and a great part of Virginia.

Let them reflect on the immense labor that has been bestowed in the Southern states, in the business of raising great hills about Indian corn. It is now acknowledged, with good reason, by many of the best planters, that it is altogether useless in promoting the growth of the corn; but say they, it is absolutely necessary to raise a small hill, to prevent the corn from falling, by storms of wind and rain. Let us try the wisdom of this improved mode. Every one who has paid attention to the growth of corn, must have observed, that before, or about the time it arrives at the state of danger, it is sure to send out a circle of strong roots just at or a little above the surface; these are the supports of nature; and so well are they adapted to the purpose, that we seldom see a stalk torn up by the roots, except where the earth is previously washed from about them. If let alone, there is no other danger to be apprehended than from the breaking of the stalks, which indeed, sometimes happens, and which hilling does not prevent. If it is bent down by wind and rain, when the wind ceases and the blades are released from their burden of moisture, it will of course rise. But the officious planter must do something to assist nature. He accordingly raises a hill; how does it affect the plant? Let him observe it soon after, and he will discover he has mistaken his aim; that nature, feeling herself thwarted, is endeavouring to repair the injury, by retaining a part of the *nutritive juices* provided for the support of the shoots above, for the purpose of sending out a *new set of braces* above the *new raised hill*. This takes time, and frequently before the new roots have taken hold in the earth, a gust of wind and rain comes on; the consequence of which is, that the hill soon becomes softened by the rain, and the wind at the same time pressing the stalk against it, it gives way and leaves an opening behind the stalk; this opening is instantly filled by the rain beating the earth into it, and the stalk secured as far as it has gone; another blast forces it still lower, and the same effect succeeds behind it; when the storm is over, we find

the stalk fixed precisely at that point of depression at which the hardest blast of wind left it, after the hill became wet. This is the present *improved* mode of hilling corn.

Let them reflect on the present mode of *supporting* their stock, which is principally from the *corn-house*; by neglecting the culture of *grasses*, the stock is maintained (if well maintained) at more than *double* the expense that it might be by a proper attention to grass; and the land at the same time reduced to *poverty*, that would otherwise be *enriched* by such attention.

Now my friends, view yourselves impartially in the mirror thus held up to you, and I believe you will cease to wonder, that you have not long since discovered the advantages of *deep ploughing*.

(To be Continued.)

[From the Silk Culturist.]

HESSIAN FLY.

A writer in a late Baltimore Chronicle, estimates the last wheat crop, from the destruction of the fly and other causes, at 12,000,000 bushels less than its usual amount, and proposes to the legislatures of Virginia, Maryland, Pennsylvania, and New York, to offer a premium of \$4,000 each, to any individual who may discover an effectual preventive of its ravages. The quantity of wheat annually destroyed by this insignificant insect is alarming and ought to induce entomologists and farmers to investigate its origin and its history in this country, its habits and the manner in which it attacks the grain and blasts the hopes of the husbandman, in order, if possible, to discover the method, by which its progress may be arrested and its work of destruction stayed.

The wheat fly of this country is a species of *Cecidomyia*, and to distinguish it from the *Cecidomyia triticea*, of Great Britain, is called *Cecidomyia destructor*. Its first appearance in this country was about the year 1784, and was first discovered in a wheat field at Brooklyn, Long Island, upon, or near the spot occupied as an encampment by the Hessian army in the revolutionary war; and hence its provincial name. Its ravages were so extensive, at its first appearance, as to threaten the total extirpation of wheat from this country, and cause the British Privy Council to adopt measures to prevent the importation of so formidable an enemy. These deliberations made a volume of two hundred pages, in which it was stated that "their numbers were so incredibly great that in wheat harvest the houses swarmed with them, to the extreme annoyance of the inhabitants, they filled every plate or vessel that was in use, and five hundred were counted in a single glass tumbler exposed to them for a few minutes, with a little beer in it. From the place where they were first discovered they gradually spread over the Middle and Northern States, producing devastation and dismay wherever they went. Their annual migrations were supposed to be about twenty-miles—hastened or retarded, however, by the current of the prevailing winds.

With respect to the insect, entomologists are agreed in their descriptions: but with respect to the manner in which it accomplishes its work of destruction, or more particularly, the time when

the egg is deposited, there is some disagreement among farmers as well as scientific men. An entomologist of much celebrity, says:—"It is towards the end of June and throughout July that the operation of depositing the egg takes place. The flies are said to repose during the day on the lower part of the stems, becoming active about sunset, their activity depending in a considerable degree upon the sun's being either near or below the horizon—and frequenting during the day the most shaded parts of the crop. The insects prefer the ears emerging from the vagina to those farther advanced for the depositing of their eggs, and from one side only of the ear being exposed when the plant is in this stage of growth, the other side generally remains uninjured. Sometimes as many as thirty-five flies have been observed upon a single ear, in the act of depositing their eggs, which are generally found in clusters, varying in numbers from two to ten upon the inner chaff; they are also to be observed in the interior parts of the flower, being fixed by a glutinous secretion; with which they are covered when deposited. It seems to be one of the objects of the female fly to fasten the anthers, by means of similar glutinous matter, so as to prevent the flowers from blooming: this is done to enable the larva the more easily to attack the anthers, upon which it feeds, and it often happens, that so intent are the females when thus employed, that they become entangled in the corolla, and fall a sacrifice to their maternal affection, or rather to the instinct which compels them to perform this act.—The larva are hatched in eight or ten days, when they immediately commence feeding upon the pollen, which is only sufficient however for their supply in the first instance, after which they crawl round the lower part of the germin, where they probably feed upon the matter which had been destined to form the grain. After arriving at their full size the larva quit the ears of wheat and fall to the ground; beneath the surface of which they are transformed into pupae.

A gentleman of much observation and reflection thus describes the insect and its habits:—"It will be sufficient to observe, that its form, as on eruca, is that of a small white maggot; that its enclosure, when a chrysalis is hard, form nearly cylindrical, the color of flaxseed, and scarcely one fourth of an inch in length; and that when a fly, it is less than a gnat, like that insect in figure, and of a dark cream color. Its eggs are laid in autumn, immediately after the first joint of the wheat; in the spring, upon the second; and in the summer above the third. When the nidus is not attainable, it betakes itself to other vegetables; and it should seem, of many kinds, for the same purpose. The maggot perforates the stalk of the wheat, cuts off the interior rind, together with the principal part of the vessels: and lives upon juice, which would otherwise supply nutriment to the ear.—Wheat is its favorite food. Its greatest ravages are accomplished in the autumn; when for want of wheat it will destroy rye and barley. The yellow-bearded wheat, having in the exposed joints a stalk nearly solid, is more secure than any other kind against this enemy; but it yields less—is more exposed to the injuries of winter and spring, and when made into bread, becomes

dry much sooner than the bald wheat. Upon ground also, which has been manured with ashes, as the wheat grows more gradually, and with a firmer stalk, it is less exposed, than sown after a dressing from the stable. When it is sown late in the season, it commonly escapes the ravages of the fly in the autumn—and unless destroyed by the frosts of February and March may with a good degree of probability be expected to yield a crop. But notwithstanding these and all other remedial efforts, the mischief, which it accomplishes, is prodigious.

The writer of the article before us has another theory, which though new, may nevertheless be true. He says—"From my observation I am convinced that the impression that this insect is migratory in its habits, is erroneous. On the contrary, I am fully convinced that the egg from which the insect is hatched, is sown with the grain, and that any preparation which could destroy the egg on the seed wheat without injuring the germ, would prove effectual. Could an effectual preventive of the ravages of this insignificant but formidable enemy to the wheat crop be found, the discoverer would be justly entitled to a very liberal reward. Investigation and experiment are worthy of legislative encouragement, and we hope they will receive it."

SHEARING SHEEP.

Lambs should always be left at home when sheep are to be washed; as they are saved much fatigue where the distance is considerable, and many accidents incident to the pen, crowded as they are at such times; besides the advantage of having the sheep go directly home without any trouble, after washing. Ticks are very injurious to sheep of all ages, but more so to lambs, as they have the trouble of them in summer; the ticks leaving the old sheep for a more secure retreat on the lambs.—To destroy ticks, I take 10 or 12 lbs. of tobacco stocks for 100 lambs, (which I buy of the tobacconist for as many pence,) and at the time I shear sheep, put it into a tub sufficiently large to dip them in, and fill it with water, and let it soak six or eight days, when I get up my lambs, mark, dock, and alter them, then dip them into the tobacco juice; this not only kills the ticks, but is serviceable to the wounds made by docking and altering, and is all the remedy I ever apply to such wounds. Dipping the lambs in that way two successive times, will destroy all the ticks in the flock.

The method of docking lambs by taking hold of the tail and cutting it off while the animal is struggling to escape, is very cruel, as it leaves the bone longer than the skin, which not only makes it very sore, but induces the flies to work at it, which endangers the life of the lamb. My method is, to have a man take up the lambs, and place the tail bottom upwards, on the square edge of a block; then with a large knife, I crowd the skin which is loose up to the body, and strike the knife with a hammer, which leaves nothing to impede the shares more than cording, and it is attended with less trouble. Lambs that have much wool on them, should be sheared about the pouch to prevent the blood and wool from becoming so hard as to obstruct the discharges of matter from the wound.—Lambs should be weaned

the last of August, and have a good chance for feed till November; then oats in the bundle two or three months, as their condition may require.—*Vermont Chronicle.*

[From the Farmer's Cabinet.]

SUGAR BEETS.

The following letter from an intelligent and practical farmer, addressed to Benj. M. Hollinshead, Esq., of this city, (Philadelphia,) we most respectfully commend to the attention of our readers.

"In answer to thy inquiries as to the value of the beet root crop, I may state the following facts as the result of my own experience, and from which I come to the conclusion that, for the purpose to which I have applied them, there is no crop better adapted. The first of beets I raised was in 1835, when I planted about the sixth part of an acre in the middle of the sixth month, (June,) and from which I gathered 75 bushels; those I planted in rows about 3 feet apart, and about one foot between each plant; from this experiment I found, that to raise 450 bushels of the beet-root on an acre of ground, required much less labor than a crop of common potatoes. Neither do I consider this an average estimate of what might be produced, for the following reasons: 1st. They should be planted earlier in the season, that in case any of the seed should fail to come up, (as some of mine did,) the vacancies might be filled by transplanting from places where they would be too thick; and in sowing the seed, enough should be put in the ground for that purpose. 2. They might be planted much nearer together, say the rows two feet apart, and about eight inches between each plant in the rows; there would be then sufficient room to give them all the necessary culture. My object in raising this crop was to make an experiment in the way of obtaining sugar, at the suggestion of an individual who had that object in contemplation for several years; but from our limited knowledge of the process necessary to the accomplishment of that end, were not able to succeed further than in obtaining tolerably good molasses. I discovered however that but little was lost in consequence of the failure, because the pumice (that is, the roots after being ground and pressed) proved to be very good food for either cattle or sheep. By feeding on this, my cows yielded an additional quantity of milk. If for sheep, there was nothing perhaps much better, in consequence of the root being reduced to such very small pieces. The last year, 1836, I again raised another crop, but under the same disadvantages as the year previous—not getting my seed in the ground sufficiently early to admit transplanting, and have all the benefits of the season, which was rather an unfavorable one for this as well as most other crops, in consequence of so much cold weather. I had, however, a large quantity of beets, which I have fed away to cattle to good advantage, making use of the tops, in the early part of the fall, as food for cattle. I have fed my cows chiefly with them, and find they give more milk than before, and of a good quality.

I am, respectfully, thy friend,

JOHN JACKSON."

Darby, Del. co., 1st Mo. 1837.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	7 50	9 50
CORN, yellow,.....	bushel	85	86
White,.....	"	80	
COTTON, Virginia,.....	pound		
North Carolina,.....	"		
Upland,.....	"		
Louisiana 20a21-Alabama	"		
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.		
Do. do. baker's,.....	"		
Super How. st. in good de'd	"	9 00	
" " wagon price,.....	"		
City Mills, super,.....	"	7 50	7 75
Do extra,.....	"	8	8 25
Susquehanna,.....	"	9 00	
Rye,.....	"	6 50	6 75
Kiln-dried Meal, in hhd.	hhd.		
do. in bbls,.....	bbl.		
GRASS SEEDS, red Clover,.....	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"		3 00
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"		1 25
HAY, in bulk,.....	ton.	15 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	6 25	6 50
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	17	
second,.....	"	13	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	45	46
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 87	
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 00
" brown and red,.....	"	3 50	5 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.		
Red, best foreign,.....	"	1 40	1 50
fair to good Md. 100a130, inferior	"		
WHISKEY, 1st pf. in bbls,.....	gallon.	38	sales
" in hhd.,.....	"	35	do
" wagon price,.....	"		bbls
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 50	
To Wheeling,.....	"	1 75	
Wool, Prime & Saxon Fleeces,.....	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do,.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

REMARK—The prices are but nominal, as there are but few transactions.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	11	12
Shoulders,.... do.....	"	11	11½
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	8	
BUTTER, printed, in lbs. & half lbs.	"	25	37½
Roll,.....	"	25	31½
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	7 00
Cows, new milch,.....	"	26 00	40 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87½	
CHOP RYE,.....	"	1 75	1 87½
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,.....	barrel.		
No. 2,.....	"		
Herrings, salted, No. 1,.....	"	2 75	
Mackerel, No. 1, ——— No. 2	"	9 50	10 00
No. 3,.....	"		5 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	
Branch at Baltimore,.....	do	
Other Branches,.....	do	
MARYLAND.		
Banks in Baltimore,.....	par	
Hagerstown,.....	¾a	
Frederick,.....	do	
Westminster,.....	do	
Farmers' Bank of Mary'd, do	do	
Do. payable at Easton,.... 1		
Salisbury,.... 2 per ct. dis.		
Cumberland,..... 3		
Millington,..... do		
DISTRICT.		
Washington,.....		
Georgetown,.....		
Alexandria,.....		
PENNSYLVANIA.		
Philadelphia,.....	¾a	
Chambersburg,..... 1		
Gettysburg,..... do		
Pittsburg,..... ¾a		
York,..... 1		
Other Pennsylvania Bks. 4		
Delaware [under \$5].... 6		
Do. [over \$5].... 2		
Michigan Banks,..... 10		
Canadian do..... 10		
VIRGINIA.		
Farmers Bank of Virgin. 2		
Bank of Virginia,..... do		
Branch at Fredericksburg, do		
Petersburg,..... do		
Norfolk,..... do		
Winchester,..... do		
Lynchburg,..... 2½		
Danville,..... do		
Bank of the Valley,.... 2		
Branch at Romney,.... 2½		
Do. Charlestown,..... 2		
Do. Leesburg,..... 2		
Wheeling Banks,.... 4		
Ohio Banks, generally 6a7		
New Jersey Banks gen. 5		
New York City,..... 1		
New York State,.... 3a4		
Massachusetts,..... 3a3½		
Connecticut,..... 3a3½		
New Hampshire,.... 3a3½		
Maine,..... 3a3½		
Rhode Island,..... 3a3½		
North Carolina,.... 6		
South Carolina,.... 8a10		
Georgia,..... do		
New Orleans,..... 15		

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the country. It is remarkably healthy and handsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; CASH will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to EDWARD P. ROBERTS, Baltimore, Md.

13,000 MORUS MULTICAULIS TREES.

The subscriber has received 13,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,
March 7. 4t. Baltimore, Md.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER AND GARDENER, North-east corner of Baltimore and Charles streets, Baltimore, Md. April 18, 1837.

A MARE AND COLT FOR SALE.

FOR SALE a brood Mare and Colt. The mare is now 8 years old, and has by her side a mare colt, dropt this spring. She is a large mare, blood bay, a fast trotter, and capable of going 4 miles a minute, in a gig, with ease. The colt was sired by Young Tom, a first rate racker and trotter. The mare is sound, and would be a great acquisition to any gentleman wishing a brood mare.

Applications to be made to the editor of this paper. may 30

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard, Grass and Herds Grass Seed.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution. J. S. EASTMAN.

CONTENTS OF THIS NUMBER.

Remarks on the fears of a subscriber—prospects of the crops—notice to put in potatoes—extracts from correspondents relative to the crops—policy of ridging for roots—modes of promoting the growth of trees—culture of the peach—cure for the rheumatism—how to choose sheep for breeding—analysis of grasses—Moore on the errors of American husbandry—essay on the Hessian fly—method of shearing sheep—culture of sugar beets—advertisements, prices current, &c.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 6.

BALTIMORE, MD. JUNE 6, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 6, 1837.

The Highland Agricultural Society of Scotland have offered a premium of 500 sovereigns for the first successful application of steam power to the cultivation of the soil.

We were gratified to learn from a respectable gentleman, a citizen of Franklin county, Pennsylvania, a few days since, that the rains of May have improved the wheat crops of that county so much as to give well grounded hopes that there will be a fair average crop.

From Frederick county, Md. we have similar accounts.

We observe by an extract from a letter to the editor of the Albany Silk Worm, from a gentleman in Troy, New York, that his *Morus Multi-caulis* trees have withstood the late winter in that quarter unprotected in the open field, and come out undamaged even to the top bud.

The New York Evening Post says, that many farmers of that state have had the coming crop of wheat and other produce engaged for several months past, at good prices.

Mildew on Grapes—A gentleman of this village, who takes much interest in these things, informs us that he has discovered a *sure* remedy for mildew upon grapes. The mildew has been the great bane to the success of growing the more tender but delicious kinds of grapes in this quarter, and even the much praised Isabella suffers more or less by it. The gentleman above mentioned, says that he last year discovered that his grapes began to mildew badly, that he had formerly tried sulphur and other remedies without success, and that he made the experiment of applying strong soap suds with a syringe to a few bunches, and these came to maturity plump, smooth and fair, while all the rest upon the same vine were so badly mildewed as to be unfit for use. Should this simple remedy prove effectual, our courage will again be revived in cultivating this delicious table fruit. —*Fredonia Censor.*

The Crops.—The following paragraph from the *Winchester Virginian*, conveys most gratifying intelligence:

"The late fructifying rains have greatly improved the promise of the wheat crop in our vicinity, and have caused the hopes of many of our farmers to revive. Vegetation of every kind seems to have imbibed new life, especially in the cases of the grass and corn crops, and we yet trust that the cultivator of the soil may reap a reasonable return for his industry."

WORK FOR JUNE.

ON THE FARM.

The labours of this month are full of interest, not only to the farmer, but to every individual in the community, as upon the results of the labors of the husbandman usually performed in it, much depends whether the products of the earth be plentiful or scarce. This being the case, let us see what they are.

Corn—This will require the most assiduous attention of the cultivator. Where that operation has not already been performed, it must be thinned out, and as *transplanted* corn answers better than that which is *replanted*, we would advise that the superfluous stalks be taken up with care, with as much of the soil attached to them as possible, in order that they may be placed wherever, by the worm or casualty, other stalks may have been destroyed.

The operation of thinning, replanting and transplanting being over, then comes the duties of its future cultivation. The earth must be *kept open*, and *free from weeds*, if you expect to make a good crop of corn. The mode, therefore, by which these objects are to be attained, becomes an object of deep concern. The plough, we have always thought, was too freely and too long used in the culture of this article. We are entirely opposed to ploughing after the corn has reached sufficient height to have sent out its lateral roots, across the intervening spaces of the furrows, because it is impossible, after that period, to plough without doing incalculable injury to the growing plants, in the cutting and destruction of the roots. While the plants are but a few inches high, great benefit is derivable from the use of the plough, for, beyond all doubt, pulverization is one of the happiest agents within the use of the agriculturist; but, as we have premised before, it may be car-

ried too far. After the lateral roots branch out to any considerable distance, it is best to use the *harrow* and *cultivator*, these implements both serve to open the soil to the influence of the atmosphere, the sun and weather, without exercising any pernicious effects upon the roots of the plants. The opinion is too generally received as correct, that the working of corn during a *drought* is the cause of its *firing*. We believe, that wherever corn *fires* after such ploughings, that it may be traced to the circumstance of its roots being cut at a time when there is not moisture enough in the earth to nourish and counteract the deleterious effects resulting from the bleeding of the roots. If the roots be essential to the growth of the plant, and all must admit that they are, it is important that they be preserved in their integrity of form and volume—every portion of them being intended to answer some valuable purpose of extracting or imbibing nutriment from the earth. Deprive an animal of the means of conveying food into the stomach, and death must supersede, and surely it cannot rationally be presumed that if the source of deriving aliment be measurably destroyed, that the vegetable thus injured can flourish in perfect vigor; on the contrary, in proportion to the extent of injury which the roots may sustain will that be which the plant suffers, for in the same proportion that you withhold food from the stalk will its fruitfulness be decreased.

Give to each hill of corn as early this month as possible,—indeed it should be done when the corn first comes up,—a small portion of spent ashes and plaster.

Buckwheat. This grain should be put in as early as possible this month, as the sooner it is the greater the security there will be that its ripening will not be arrested by untimely frosts. And here let us for once persuade each of our readers to put in an extra quantity; we are solicitous upon this head, because we are desirous of adding to the quantity of provender for the cattle, and we believe that no better hay can be given to milch-cows than that made from the straw of buckwheat.

Potatoes. Dress your ground early, and put in your late potatoes, and recollect that if you would make a good crop you must keep your potatoes free from weeds, and the earth around them open.

Cutting and curing hay. In haymaking bear in

mind that the rain should never catch your grass in swarth; that to cure it in the greatest perfection, it should be alike preserved from rain and sun; that the best plan to do this is, after one day's exposure in swarth to the sun, your grass should be put into cocks and turned each day until cured after the dew is off; that your clover should be salted when put away in mow or stacks, and that if alternate layers of clover and straw be placed in the stack, the former will keep better and the latter prove as acceptable to your stock as hay.

Ruta Baga. Get in your *ruta бага*, if possible, by the 10th of the month, and in preparing your ground do not spare either manure, ploughing or harrowing; they can be raised either in drills, or broadcast.

Turnips. Sow a few for autumn use, and while you are providing for your own table or market, recollect that your cattle would be grateful if you were to put in an acre for their use, to afford them succulent food at that season when green herbage is scarce.

Millet. This vegetable product may be sown any time during this month, and, indeed, up to the 15th of July, either for hay or grain. Those who may not have a sufficiency of land in grass for hay cannot do better than to put down a few acres. If sown in good light sandy loam, well manured, it will average from 2 to 4 tons to the acre.

Pumpkins. No farmer or planter should omit to put in among his corn a few acres of this excellent and substantial plant. For early winter feeding there is scarcely any product of the earth better adapted for farm uses. We are aware that an objection has been made to its use by some as food for hogs, on the ground that it is scouring, but this objection is easily removed by cooking them, which process not only renders them more palatable, but greatly increases their nutritive properties, by concentrating their saccharine matter. With others another objection has been urged; we allude to the difficulty of ploughing the corn; but this is more ideal than real; for if put in after the corn is up, before the vines assume any considerable length the corn will be nearly ready to be put by. But should it be otherwise, it would be an easy matter for a careful hand to precede the plough and turn the vines out of the way until it should have passed, when the vines could be replaced. This labor could be performed without any serious inconvenience as to time, and as the pumpkins would not materially subtract from the yield of the corn, while they would immensely add to the solid comfort of the barn-yard dependents, we do hope that such of our readers as are not in the habit of cultivating them, will now commence the good work.

WHEAT—IMPORTANT DISCOVERY.

The New York Farmer publishes a letter from the Rev. Mr. Coleman, announcing an important discovery from the destruction of the grain fly.

The grain fly or insect, which, for a few years past has been destructive to wheat in many parts of the country, has this year extended its ravages, and excited, wherever he made his appearance very serious alarm. An eminent farmer in the state of New York wrote to me a year since, that he must give up the cultivation of wheat, as his crops were so much injured that he hardly obtained a return equal to the seed sown. I knew another instance in the same State, where, though the straw was large, and the appearance promising, yet from thirteen bushels sown not more than seven were obtained.

I have known other cases in which the whole field has been mowed and sold for litter; and in a recent excursion up the valley of the Connecticut I have heard complaints every where, and hundreds of acres so destroyed that the grain they would yield would hardly pay for reaping. Besides this, the same insect has destroyed many fields of rye in the same manner as the wheat, and had been found this year in the oats: the progress of the insect has been about forty miles a year; and a distinguished gentleman in Vermont, a practical and extensive farmer, remarked that he feared they would on this account be obliged to relinquish the cultivation of small grains.

The habits of the insect have not yet been accurately observed. I myself have not yet seen the fly, but have seen the worms in the kernel after the grain has been destroyed. He is represented as being a small reddish fly, which is seen hovering over the wheat fields in immense numbers, while just in flower, and has been observed to light upon the kernel or bud, to ascend it, and then descending to the inner side, to deposit his egg between the stalk and the kernel. I purposely avoid the use of all scientific terms, wishing to be understood by common farmers. From this egg the worm is generated which entirely consumes the grain while in the milk, leaving nothing but the husk, in which are found several yellow worms, about an eighth of an inch in length. As the work of destruction is now completed, any farther observations are of no importance, unless we can some way reach so as to destroy the germ of the insect. No preparation of the seed or ground, has yet been found effectual to this end.

The continuance of the fly upon the grain is thought not to exceed three or four days, and they are seen in great numbers just at night. Some farmers have found late sowing a partial security as the season for the flies has passed away before the wheat was in condition for their attack.

Spring wheat sown as late as the 7th and 8th of June, has been untouched, though in case of such very late sowing, the farmer will be fortunate if, in attempting to escape the fly, he does not get nipt by the frost.

I have now, however, the extraordinary happiness of announcing to the agricultural public, what there is reason to believe, will prove an effectual, as it is a reasonable and feasible preventive. Should it prove effectual, the remedy will

be worth millions and millions of dollars to the country. It was communicated to me, on a late tour of agricultural enquiry and observation, by Dr. Eliquant Lyman, of Lancaster, N. H., an intelligent, enlightened, and practical farmer, whose crop of wheat usually averages from 25 to 30 bushels per acre. It consists in the application of fine slacked lime to the wheat just at the time of its heading out and flowering, at the rate of about a peck to the acre.

It is sown broadcast upon the wheat while the dew is on, and the field is rendered white with it. The best mode of applying it is with the hand, and for the person who sows it, taking his proper breadth or cast, to walk backwards, so that he may not cover himself with the lime. It must be sown while the wheat is wet or the dew is on, and the philosophy of its application is very simple. The maggot of the fly is deposited between the grain and the stalk. It is, of course an animal substance. The lime, or alkali mixing with the dew, is carried down upon, and neutralizes or destroys it. Dr. Lyman has now tried this preventive three successive years, and has invariably, as he assures me, saved his crops, while those of his neighbors have been destroyed.

I visited at the same time, the field of a Mr. Bellows, in the same town, who had been advised by Dr. Lyman to make this application. The field consisted of several acres. He did it; it has proved successful, and what is strongly confirmatory of the value of this remedy, is the fact that a field of rye, belonging to Mr. Bellows, adjoining his wheat, and I think within the same enclosure, which was not limed, has been nearly destroyed by the fly.

These are certainly very important experiments, and I made no delay in presenting them to the public. Dr. Lyman has promised me a more particular account of the experiment and result, and likewise Mr. Bellows, which as soon as received, I shall be happy to communicate. I have received indirect and indefinite communications that the same experiment has been successfully made in Gilmanton, N.H.; but I have not yet been able to obtain either the name or the details.

HENRY COLEMAN.

Meadowbanks, Sept. 15, 1835.

[From the New York Farmer.]

SAXONY SHEEP.

Mr. S. Blydenburgh—Sir: I wish to present through you, to the New York Farmer, and through it to the public, a few remarks in reply to a communication in the last May number of the Cultivator, with the signature R., against which, as I consider it calculated to do me serious injury, I hope you will not deny me the privilege to appear to defend myself.

It is certainly laudable in any person to wish to acquire a good reputation; but it is not laudable when that wish is so strong as to cause him to use unfair means to obtain it. There is room enough in the world for every honest man's reputation, without pulling down that of others to build his upon the ruins.

That Mr. R. is a respectable sheep breeder, and is entitled to the full credit of having introduced into the country a valuable breed of sheep, I have no disposition to dispute; I should rejoice in his success, and would not withhold

from the public any part of the little share which I can give of the praise which is his due. But I should think Mr. R. ought to have reflected that other people may value their reputation as highly as he does his.

To a man who has adopted the business of sheep breeding as his main concern in life, and has had the ambition and the enterprise to procure a choice breed from a foreign country at great expense, the reputation of the breed so introduced becomes in a measure amalgamated and inseparably connected with his own. If it possesses the supposed merits, to traduce its character in the public estimation is not only to deprive the public of its benefits, but to circumvent the introducer, and mollify his honest hopes of the remuneration to which he is entitled.

There are several distinct points of excellence in which the value of sheep consists, each of which is of high consideration. No one breed of sheep possesses them all, but thousands of flocks are destitute of any of them. The most important qualification to the manufacturer is to produce the finest wool, as that quality affords him the greatest profit, and gives him the highest reputation. A qualification of equal value to the ordinary farmer, and perhaps to the mass of mankind, is to shear a great fleece, though of middling quality. A third point, which is of the highest importance to the butcher and epicure, and not unimportant to the farmer, is the quantity and quality of the carcase. A fourth point, which is of general importance to all, is hardness of constitution. Now, since no one sheep ever possessed in any thing like the highest degree all these important points, it is very natural for one man to attach the greatest importance to one point, and another to another point. The man who feels a pride in wearing the very finest cloth, and who has the wealth to gratify it, will probably feel a corresponding gratification in owning the sheep which produces the wool to make such cloth, especially if it affords him a profit equal to, or greater than that from other breeds. Another man's pride will be enlisted altogether in favor of a sheep of enormous size, especially if it shears a fleece in proportion. No matter if it is coarse; there are more people, he will say, to wear coarse cloth than fine. In the mean time, the man who measures his enjoyments in life by the quantity of good eating, says, give me the sheep that yields the meat, and you may take the wool, fine or coarse. But the man who is rather sparing of his labor, and wishes to feed a great flock with as little trouble and expense as possible, who would like to insure a flock to live like the Irishman's horse, without eating, and to scorn a shelter in the severest snow storms, such a man would seek a breed, if he could find it, which would thrive under such treatment. I am perfectly willing that each of these men should enjoy the benefit of his choice of these breeds of sheep, or even of all of them, and I only ask in return to enjoy the same privilege. I am perfectly willing to concede to Mr. R. all the absolute properties that he claims respecting his South Down Sheep, or any other sheep he may possess. If they are capable of sustaining the cold of the polar regions, or the heat of the torrid zone, or can live on air like the camelion, I should certainly feel rejoiced in his good for-

tune. I have no desire to enhance the character of my sheep by my depreciating that of his.

Mr. R. begins his remarks, after answering the five queries, which, by the by, he answers very much to suit his own purpose, by generously conceding a point, which I think he dare not deny, that the "Saxon sheep undoubtedly produce the finest wool." For that concession I thank him. "But," he continues, "their fleece is light, seldom exceeding in weight $2\frac{1}{2}$ lbs., and is too open to resist our storms. They are feeble in constitution, require great care, are poor nurses, and their lambs are raised with difficulty. The mutton from such sheep must necessarily be of a miserable description!" He further states, "that he believes in Connecticut even the pure Saxony sheep may now be purchased at a comparatively low price, say from 6 dollars to 4 dollars a head, and perhaps lower still," and he remarks in another place, "I desire to be understood as speaking of all the pure breeds, and not of grade sheep." Again he says, that "the farmers are now aware of their error in using the Saxon cross, which has ruined the constitution of their flocks, and decreased their clip of wool nearly one half, and reduced their produce until, with ordinary management, more than twenty-five lambs are seldom raised from a hundred ewes."

In answer to this I would in the first place remark, that there are nearly all sorts of sheep in Germany, and even in Saxony, as well as perhaps the best in the world. Sheep have been imported from there for speculation, by persons who neither knew nor cared about their qualifications. It was enough that they were Saxon Sheep; and probably sheep have been sold as such which never saw Saxony. In the first place I think Mr. R. must have received wrong information about the 25 lambs to 100 ewes, and the other dreadful sheep killing stories he tells against the *pure breed* Saxony sheep, for I have been much among sheep breeders in this country, and I never heard of any such case before. In the next place, I am confident Mr. R. must have been deceived as to the identity of the *pure* Saxon breed, or at least, we differ in opinion respecting that breed. That he may have been misinformed or deceived in both these cases, I think is evident, from the facts of his having gone so headlong as materially to injure a flock of nearly 2000 grade merinoes by "one single cross of Saxony." A cautious man would not have experimented upon a scale so unnecessarily large. If he means some speculative breed of Saxon sheep, he ought, I think, to have said so, and not by his statements injure the reputation of my breed, which I think I shall show he knows nothing about.

But as I wish to put the most charitable construction upon every man's conduct, and to be on friendly terms with every one, especially a brother wool grower, and as he, brother R., has been so kind as to concede to the Saxon sheep (though perhaps he did not to my sheep) the only point of absolute superiority I ask for them, I will concede to him, if he wishes, that the South Downs, that is, Mr. R.'s *improved pure breed* of South Downs, excel all other breeds of sheep in every good qualification, except the one he has had the goodness to relinquish to the poor Saxons—that they are perfectly capable of enduring all weather from the equator to the poles; that

they will eat and thrive on any thing vegetable fossil, or mineral, or go without eating. I will also for the sake of a good understanding with Mr. (I mean brother) R., not only admit that he did not mean to do me any injury, but I will prove that he had no allusion to my flock, and was altogether unacquainted with it, both which will evidently appear from the following facts.

There is in Saxony a breed of sheep which were introduced and reared with great care by Augustus, Elector of Saxony and King of Poland, which, in commemoration of the introducer, have been called the Electoral breed. I was brought up in that country to rural husbandry, particularly to the care and management of sheep, and was perfectly acquainted with the purest and most celebrated flocks. From these I selected my sheep, and brought them to this country.—They bore the fatigues of the voyage remarkably well, and arrived in safety. I sustained some little losses at first, from being a stranger to the peculiarities of the country, from having to hire my sheep kept, for want of suitable accommodations, and of such fodder as I wished. During the last eight years, and since I had a farm of my own, I have not lost over $1\frac{1}{2}$ per ct.: for the last year not more than 1 per cent. The last two winters I had no loss, and the last year I raised 101 lambs, from 100 ewes, one only of my ewes having twins. The sheep which R. speaks of do not shear more than $2\frac{1}{4}$ lbs. My flock, last year, of 200 ewes and lambs averaged 2 lbs. $6\frac{1}{2}$ ozs. If I had had a proportion of wethers, they would probably have averaged 3 lbs. My grown bucks sheared $4\frac{1}{2}$ lbs. He says they (that is, the sheep he speaks of,) are poor nurses; my ewes are uncommonly good. All these facts can be abundantly proved from my sheep records, in which births and deaths, and every thing of importance, is recorded, and from credible witnesses. All these facts, in which there is no guessing, show conclusively that R.'s statements about the *pure breeds* of Saxon sheep did not allude to my sheep at all; and therefore I hope there will be no unkind feelings between us.

Respecting the '*miserable*' quality of the meat, if R. will procure the best sample of South Down mutton he can find, I will meet him at any place he shall name with a sample from my Saxons; both shall be cooked in the same manner; he shall select one or more connoisseurs in good eating, and I will rest that point on their decision.

I have but one little statement more to add, and I will then leave the subject to the public.—The prices current of wool in New-York, given in the Cultivator for the last month (May) are for Saxony, 80 cents; for half-blood, 53 cents, and for native, 33 cents. Now, allow my ewes to produce $2\frac{3}{4}$ lbs., (and they will rather overgo than fall short of it,) then at 80 cents the fleece will bring \$2.40. Allow the South Down ewes to shear 4 lbs. and allow it to be equal to the half blood merino, and the amount will be \$2.12.—Allow the Bakewell breed to produce 7 lbs., which is 1 lb. more than R. rates them; this at 33 cts. will be \$2.31. The three fleeces will stand thus:

Saxon,	2.40
South Downs,	2.12
Bakewell,	2.31

With these remarks, I submit the subject.
HENRY D. GROVE.

THE GREAT ERROR OF AMERICAN AGRICULTURE EXPOSED, AND HINTS FOR IMPROVEMENT SUGGESTED.

BY THOMAS MOORE.

(Continued.)

Hitherto I have treated of the beneficial effects to be derived from *deep tillage abstractedly*, and no further than abundant corroborating proofs will substantiate; but believing as I do, that if ever a material reformation takes place in *American agriculture*, that this will be the *basis*; I am induced to offer a few hints for consideration, respecting the probable advantages that may be derived from the practice, when combined with other necessary improvements; such as a due attention to manures, rotation of crops, &c. &c.

By a proper attention to these things may we not reasonably hope for the speedy fertilization of thousands of acres of exhausted old fields, that now will not pay for enclosing? To effect which I would propose, that the *system* by which they have been reduced to their present state of *poverty*, be in all points *reversed*. They have been reduced by *SHALLOW PLOUGHING*, an *ill-chosen* rotation of crops, and a total neglect of *manure*. Let them be recruited by *DEEP PLOUGHING*, a *favorable rotation*, and *all the manure* which the best management will afford them. My plan would be this; break up the ground in the fall, ploughing at least eight inches deep; if level, throw it into ridges; if hilly, begin at the base and surround the hill, if the situation will admit; if not, turn a furrow down the hill and let the plough return light;* for if the furrows are attempted to be turned against the hill, it will not be effectually done, and the whole business will be thereby marred. In the spring, plough and harrow as often as convenient, or the state of the ground seems to require; always keeping to the same depth: If a sufficient quantity of manure is in readiness, the last ploughing should turn in from 25 to 30 large cart-loads per acre; then plant with potatoes; after they are dug in the fall, either sow down in wheat, and early in the spring red-clover-seed; or let it lie over winter, and sow in the spring, barley or oats and clover.

If manure cannot be procured the first spring, let not the industrious improver be discouraged; but instead of potatoes, substitute some *shading crop*, that does not require so much strength of soil; such as peas, beans or buckwheat. I have no doubt that if the foregoing instructions are attended to, on ground that has ever been tolerable, that one or other of these crops may be cultivated to profit: This will also better prepare the ground for the next year's operations, by which time it is presumed the cultivator will be furnished with manure to proceed as before mentioned. In planting potatoes on hilly ground, or any other crop set in rows, and requiring to be ploughed or hoed whilst growing, more attention should be paid to the rows being horizontal, than in straight lines, as being more favorable to derive advantage from hasty showers, and also to prevent washing. In most situations and soils it will be found that the clover will be much improved by the use of plaster of Paris, as a top dressing; and ought not to be neglected when it can be procured.

*The hill-side plough may be used.—J. B. W.

If by these means a good swarth of clover is produced, I consider the land as reclaimed; for I know of no better preparation for a crop of wheat, than a clover-lay well turned, after being mowed two years; the wheat sown on the ploughing and harrowed in.

Lands once reclaimed by these means, will by a similar course of management, that is, by *deep cultivation*, a *well chosen rotation*, and *manuring* as often as practicable, be kept in fine tilth with much *less labour* than in the present mode. May we not then expect by a proper attention to these interesting considerations, great improvements in the cultivation of Indian corn, tobacco, peas, beans, &c. ? We have found by experience, that these crops particularly, require the soil to be kept open and clear of weeds during their growth; in order to effect these purposes, the common practice with respect to corn is, to plough and cross-plough frequently, three or four inches deep, until about the time of tasselling or blossoming; in addition to which, many hill several times, and nearly all once at least. The other crops are mostly ploughed, and almost universally hilled. But provided we can attain these ends (viz. the destruction of weeds, and an open soil) by other means, are those practices rational? Any one who will be at the pains to search, may easily discover, that the roots of corn soon extend themselves a considerable distance from the hill; by the time the top is knee high, the roots are extended nearly from row to row (if not too frequently cut off by the plough) though so small as to be scarcely visible. Is there any good reason to suppose, that nature requires those numerous organs, prepared for the express purpose of supplying the rising plant with sufficient nourishment, to be so frequently mutilated, as must always happen in ploughing, thereby not only depriving the plant of that quantum of supply contained in the amputated vessels, but also of all future supplies by the same sources?

True it is, that above ground we frequently find it necessary, apparently to oppose the operations of nature in some measure, in order to bring her to act more consistently with our views.—For instance, fruit trees, and many kinds of plants that bear their fruit upwards often project so many branches and suckers, that notwithstanding the fruit may thereby be increased in number, yet we find it necessary to lop off a part, in order that the whole of the nutriment may be applied to the remainder; improving the quality, and frequently increasing the quantity thereby. But, that it is necessary to diminish the roots that supply the nutriment, I believe has never been proved by any experiment.

Yet nevertheless, we constantly see the good effects of frequent ploughings; the reason is obvious; in the common mode the ground becomes too solid in a few weeks, sometimes in a few days, for the roots to penetrate, and therefore it is better for the plant, when all its vessels of supply are embargoed, to part with one half, if thereby admittance is obtained for the other half to act freely. So that it may be fairly said, in the culture of Indian corn, of *two evils*, we choose the *least*. The important question is, how shall we avoid *both*? May I not answer, by attending to the foregoing instructions?

A suitable rotation, and the necessary prepara-

tion of the ground before planting, will so far clear it of weeds, that one or two ploughings and as many harrowings afterwards, will complete that business; all of which may be done by the middle of the sixth month, without material injury to the roots, as the corn at that time is seldom more than a foot in height. If these ploughings are of the depth before mentioned, there will not be the least danger of the soil becoming compact for a few weeks, until the growth is so much increased, as almost completely to shade it; after which it will need no ploughing to keep it open. This effect will generally take place in this state about the middle of the seventh month; for it is to be remembered that in this mode, it may be planted much closer than in the common way; the number of plants not being estimated so much from the surface as from the quantum of soil employed, as before hinted; for instance, if one plant requires a yard square of soil, of $3\frac{1}{2}$ inches depth, the same surface, will be more certain to bring to perfection two plants, when worked seven inches deep; experience having proved, that in some particular rich deep soils, corn will admit of being planted four times closer than is usual, without suffering from a want of air. Thus it is probable, nay experience has already reduced it to a certainty, that *half the ploughings* usually given to corn, may be made to produce *double the quantity* on the same ground. What an immense saving of labour! What an immense saving of land!

Much of what has been said with respect to corn will apply to the other crops; but as they are more generally *hilled*, I am willing to express a sentiment on *that practice* in general.

It has long been a matter of doubt with me, whether any kind of crop we cultivate, requires this mode of tillage, except it be on low grounds, merely to avoid too much wet; and the greater opportunity I have had of making observations, to ascertain the fact, the more I have been confirmed in the sentiment. I believe it will always be found that nature disposes plants to make the best of their situation; to protect their roots at such distances from the surface, and in such directions as are best calculated to extract their food from the surrounding soil: is it not then reasonable to suppose, that in removing the earth from the *extremities* of the roots, and heaping it about the *body* of the *plant*, we more or less *derange* the economy of *nature*? And instead of aiding we involve her in difficulties not to be surmounted, but at the expense of a part of her *vital secretions*.

I have examined the vines and roots of potatoes that have been much hilled, which plainly showed, that no less than three different sets of roots had been projected at as many different times, designed by nature to bear the fruit; the first and second having bulbs as large as peas or gooseberries; the third and nearest the surface bearing the burden of the fruit: These last springing from a part of the vine that must have been *above* the surface before the *first hilling*.

For notwithstanding the fibrous roots extend as deep as the fine open soil, the potatoes incline to lie about four or five inches from the surface. The shape of the hills or ridges, are also unfavorable to the retention of moisture. I have fre-

quently seen potatoes dug that have been manured in the roots and several times hilled, which has been turned out dry, and nearly in the same crude state in which it was applied, not having received moisture sufficient for the purpose of fermentation. The best potatoes I ever had, were produced with scarce any hilling, the ground being kept open by other means; the same thing I have known to happen in the practice of others.

Having mentioned that within certain limits, exhausted lands may be reclaimed at half the expense that new lands are cleared, and also the quantity of manure that I apprehend necessary for the purpose, it may perhaps be expected, that I should say by what means such a quantity is to be collected, and also point out the favorable rotations before alluded to.

With respect to these much might be said, in addition to any thing I have seen published, especially on the subject of manures; but as they have already engaged the attention of many of our citizens, and as my present views are not to enlarge on subjects treated by others, but briefly to suggest a few things which appear to have escaped notice, or at least that attention I have believed their importance required; but recommend enquirers to some small tracts written in our own country (to wit) G. Logan on rotation of crops—J. B. Boardly on the same*—and Richard Peters on Gypsum.†

But as it may not be practicable for all to be furnished with these authors, I will endeavour to sketch the outlines of what I think good management in these respects.

In the first place, house as many of the stock as possible throughout the winter, always keeping them well littered. Cattle that are not housed should have all their food given them in the barnyard, which should be so constructed as to prevent any wash passing away from it; an excavation should be made in some part of it, and always well supplied with mulch of some kind;—such as refuse straw, weeds, corn-stalks, rich earth or leaves from the woods, or several of them together, in order to imbibe the soakings of the manure thrown out of the stables, and also that which lies on the higher parts of the yard. All kinds of refuse substances capable of being converted into manure, ought to be thrown into the yard: The manure should be carted out in the fourth month and the yard again littered. If a considerable part of materials remain unrotted when taken into the field it is not to be regretted, only let the quantity be the greater, and have it immediately ploughed in; for I am clearly of opinion, that the putrifying fermentation, can no where be carried on to so much profit as in the soil.

* Since writing these remarks, I have been informed that J. B. Boardley has published a considerable volume on agricultural subjects; but not having seen any of his writings, except his sketches on rotation of crops, I can form no opinion of the merit of the others.

† I agree with this author, as to the liberal use of this manure, but have taken the liberty of offering a theory of my own, with respect to the manner of its operation, as will be seen in the course of this essay.

My management for two years past has been very indifferent, yet I have been enabled to manure one acre for every three head of grown horses and cattle, kept over winter, and nearly one from the hog-pen.

The land it was applied to, with common cultivation without manure, would not have produced one barrel (five bushels) of corn to the acre; with the manure and tolerable cultivation, it produced six barrels. If it had been applied to land, already in tolerable heart, I believe the proportional increase would have been much greater. This year my management has been better, but far from perfect, yet I expect to manure nearly an acre for every two head, at least I am certain the thing is practicable.

The principles upon which good rotations are founded, are these: That the naked soil be as little as possible exposed to the heat of summer; that ameliorating crops, so intervene exhausting ones, as to prevent a speedy reduction of the soil, and that the preceding crop should prepare the ground for the next that is to succeed it without much labor. Thus, for instance, a crop of beans or potatoes, prepares the ground for wheat, to be sown as soon as they are taken off: Indian corn or potatoes prepares for spring-barley and clover; and clover prepares for wheat: Buckwheat may be sown on wheat stubble, which cleans the ground for corn with manure the succeeding spring.—These may be varied as best suits the soil, situation, or market, always keeping the first principles in view.

On soils inclining to stiffness, pasturing ought to be avoided as much as possible, and cutting and feeding green, substituted. The injury by treading on such soils, particularly when wet, is more than many are aware of. I have run a fence across a field set in clover, one side of which was afterward mowed two years, two crops each year; the other was pastured the same length of time, principally by beef cattle, which continued day and night, and consequently deposited their dung there; these divisions were both sown down in wheat, in the tenth month; the part that was mowed, with one ploughing about seven inches deep, and harrowed in: It was observable in the latter part of summer, that the part pastured, was become too compact to be produced by one ploughing and harrowing; it was therefore broken up in the eighth month; afterwards harrowed, then ploughed again about the same time with the other, sowed and harrowed in; the ploughing likewise about seven inches. At harvest, both sides of the fence were good, but the part that was mowed, much the best, I believe about 5 or 6 bushels per acre.

(To be Continued.)

IMPORTANCE OF DESTROYING WEEDS.

The abundance in which weeds are seen in some fields, shows conclusively that but little of the mischief caused by them is understood. Weeds are injurious to the land and to the crop in almost every possible way that they can be. In the first place they exhaust the soil to support their own useless growth, and abstract that nourishment from it, which ought to go exclusively to support the crop. Secondly, they crowd upon other plants above ground, prevent them from branching out at their roots, and deprive them of

a free circulation of air necessary for their health and vigor, so that they shoot up only single, weak, sickly stalks, incapable of producing a valuable crop. Thirdly, they throw off from the soil through their leaves into the air, an almost incredible quantity of moisture, and speedily reduce the ground to so dry a state, as to be fit for weeds only to grow in. So enormous is the quantity thrown off by some plants that it actually exceeds more than twice their own weight in a single day. A bunch of grass, placed during a very dry season, under a large vessel, sent off moisture in two minutes, so as to cover the vessel with drops, which run down its sides. Dr. Watson, who first performed this experiment, was led to conclude from its results that an acre of grass exhales more than thirty hogsheads a day. Plants are in fact but channels through which moisture is conveyed up from the soil to be dissipated in the air; hence the absurdity of the opinion that weeds will prevent the ground becoming dry by shading it. Let any one in dry weather examine a piece of perfectly bare soil, a few inches below the surface, and compare its degree of moisture with that of soil at an equal depth, near the roots of a thick growth of weeds, and he will find the difference astonishing.

Now, of what use is it to attempt raising crops if they are to be wasted by a growth of weeds? Of what use is it to buy land, and plough it, and prepare it, and put in the crops, if after all, these crops are suffered to be eaten up by such intruders? If a drove of cattle should break into a field, no one would think of resting a moment till they were driven out; and yet many allow myriads of noxious weeds to overspread their lands, often doing three-fold more mischief, with scarcely an effort to check their progress. And this is not only permitted in cultivated fields, but in meadows and pastures, which are sometimes literally covered with Canada thistles, St. John's wort, and many others, to the total exclusion of every thing else from the soil.—*German town Telegraph.*

ON THE USES OF LIME AS A MANURE.

We make the following extracts from Fessenden's Complete Farmer:

Advantages of Lime—Though there are exceptions to this rule, yet, in general, it may be confidently asserted, that, unless where a soil has, by nature, enough of calcareous matter in its composition for the purposes of vegetation, it can neither be brought into its most fertile state, nor will other manures be so useful as they ought, if lime, or some other calcareous earth be not previously applied. By lime spread upon a moory soil, good herbage is produced where nothing but heath and unpalatable grasses grew before. By the same means, grass-lands, instead of yielding nothing but bent, and other inferior grasses, have been covered with those of a more valuable description. The utility of lime to turnips is so great, that, though in the same field, where no lime had been applied the crop died away, yet in the limed part the turnips flourished with unabated vigor. On the Mendip lands in Somerset, by the application of lime, the value of land was raised from 4s to 30s per acre; and dung, which previous to liming had no sensible effect, operated after its application, as on other lands. Macclesfield forest in Cheshire,

and vast tracts in the northern and more elevated parts of Derbyshire and adjacent districts, have been astonishingly improved by the same means. The rye lands of Herefordshire, in 1636 refused to produce wheat, peas, or vetches; but since the introduction of lime, they have been so fertilized as to be successfully applied to the growth of every species of corn. In maiden soils of a tolerable quality, the richest manure will not enable them to bring any crops, but those of oats or rye, to maturity; whereas, if they receive a sufficient quantity of lime, crops of peas, barley, or wheat, may be raised to advantage. The benefit resulting from the use of lime, has been indisputably proved in the same farm; for the richer parts that were left unlimed, were uniformly inferior in produce to the poorer that had been limed, during a period of not less than twenty-one years, under the same course of management.

The principles on which lime operates as a manure—Quick-lime in powder, or dissolved in water, is injurious to plants; hence grass, watered with lime-water, is destroyed. But lime freshly burnt, or slacked, forms a compost with vegetable matter, which is soluble in water, and nutritive to plants. Mild lime, (as chalk or quick-lime again impregnated with carbonic acid,) chiefly operates, improving the texture of the soil, and its relation to absorption. * * *

Application—Summer is the proper season for liming land. That experienced farmer, Mr. Phantassie, is of opinion, that the most profitable period for applying lime is, when the land is under summer fallow, in the months of June and July, that it may be completely mixed with the soil before the crop is sown. This is also the general practice in other districts. For a turnip crop, it should be laid on early in the spring before the turnips are drilled, in order that the lime may be thoroughly incorporated with the soil, by the ploughings and harrowings it will receive; the land will thus have time to cool, and the lime will not dry up the moisture necessary for bringing the turnips into leaf. When applied to old ley, it is a good practice to spread it on the surface previously to the land being broken up, by which it is fixed firmly on the sward. One year has been found of use; but when done three years before, it had produced still greater advantages; in the former case, the increase of oats being only at the rate of 6 to 1; and in the latter, that of 10 to 1 of the seed sown. The quantity applied must vary according to the soil. From 240 to 300 bushels of unslacked lime may be applied on strong lands with advantage. Even 600 bushels have been laid on at once, on strong clays, with great success. On light soils, a much smaller quantity will answer, say from 150 to 200 bushels; but these small doses ought to be more frequently repeated. When applied on the surface of bogs or moors, the quantity used is very considerable, and the more that is laid on, the greater the improvement. The real quantity, however, of calcareous matter used, depends upon the quality of the stone. It often happens, that five chaldrons do not furnish more *effective manure* than three, because they do not contain three-fifths of calcareous matter.

Effects of lime—Many farmers have subjected themselves to an expense, at the rate of ten shillings per acre per annum for the lime they

used, and have been amply remunerated. The benefit, derived in the cultivation of green crops, is sufficient for that purpose. Such crops may be raised by large quantities of dung; but where calcareous substances are applied, it is proved, by long experience, that a less quantity of vegetable manure will answer the purpose. This is making the farm-yard dung go farther, with more powerful and more permanent effects; and from the weightier crops thus raised, the quantity of manure on a farm will be most materially augmented. Indeed, upon land in a proper state for calcareous application, (as old ley) lime is much superior to dung. Its effects continue for a longer period, while the crops produced are of a superior quality, and less susceptible of injury, from the excesses of drought and moisture. The ground likewise, more especially if it be of a strong nature, is much more easily wrought; and, in some instances, the saving of labor alone, would be sufficient to induce a farmer to lime his land, were no greater benefit derived from the application, than the opportunity thereby gained, of working it in a more perfect manner.

[From the Horticultural Register.]

PERPETUAL ROSES.

The following inquiries and remarks from a lady in Portland, we cheerfully insert in the Register, hoping that her example will be followed by many others, who desire information respecting any plants, or their culture and management, promising in every case, to do what we can, to give light upon the subject desired. It would be pleasing to make the Register more social in its character than it has been heretofore; but this cannot be done, unless its patrons will bring their thoughts together, and let them mingle on its pages.

"Portland, April 24th, 1837.

"Mr. Breck: Can you give any information respecting Perpetual Roses? Are they hardy? Have you any to dispose of? Are they the same as the Monthly Chinese Rose? We think they are not. If you were to answer these questions in the Register, many would be gratified, as we are quite ignorant touching their peculiar characteristics. I was amused at an article in the last Register, where a gentleman speaks of 'my caterpillars.' I should be rejoiced if he would call them all home, for they have troubled my garden for three years, and nearly destroyed the bushes.

"The love of flowers is rapidly increasing in this good city, as any one may perceive when passing along the streets. Even in the most unpromising situations, you often find a fine rose bush, or a few geraniums cherished by the family of the wealthy for their beauty, or occupying a sunny spot at the one small window of the poor.

"Among many small collections, we find one deserving particular notice. The plants are principally geraniums, and stand unrivalled for their profusion of flowers. Among them is a Washington, which no doubt would command a premium at any exhibition, being a magnificent plant of great size, completely covered with its numerous clusters of splendid flowers. Many others are distinguished for their graceful forms, combined with delicate flowers, forming an assemblage of beauty which well repays the unremitting attention bestowed upon them by Mrs. —, a passionate lover of flowers. The successful efforts of

this lady florist, will, I hope, lead many to devote their leisure hours to so pleasing a pursuit, and thus cheat the winter of its dreariness. Many are deterred from indulging their taste through fear of expense, supposing a green house indispensable: but here we see how much may be done with no additional expense; the plants forming the ornaments of the family drawing room, being familiar members of the household, breathing the same air, warmed by the same fire, and cheered by the same sun, richly repaying by their sweetness and beauty, all the care and affection bestowed upon them."

Remarks—As to the Perpetual Rose, we would remark, that it has of late gained much celebrity and many fine varieties have been produced; more than thirty of which are enumerated in a recent English catalogue. One of the most noted is Lee's Crimson Perpetual, considered very magnificent, and flowers in profusion from June to October. It is esteemed the finest of all garden roses; its fragrance is exquisite, and the plant highly valued.

The different species of the Rose have been so mixed by crossing or hybridizing, that it is rather difficult in many cases, to trace their origin with certainty, and we do not feel positive to what section the variety in question belongs. That it is not a China Rose is very certain, but we have reason to believe that they may be arranged under the *centifolia* and *gallica*, and that they are the offspring of some of the varieties of these two sections of the rose which have been impregnated with pollen from some of the varieties of *spinossissima*, or the Scotch Rose.

As the parents of this variety are hardy, we should suppose, of course, that their offspring were the same; but as it is frequently grown very luxuriantly by high cultivation, to produce the desired effect, it becomes a little subject to winter-kill without some protection. We are not positive, but believe our friends Winship and Kenrick can furnish plants of this desirable Rose.

The following remarks are from an English work: "They are, perhaps the most desirable of all the pleasing families of Rosa. Like their prototypes, they are highly fragrant, and, if possible, more so in September, October and November, than in June. As every shoot in most of the varieties produces bloom, the soil cannot be too rich; for with these, luxuriant growth will be sure to give abundance of flowers. A good practice would be, to cut off all the bloom buds in June, and shorten the shoots to about half their length, then water them with manured water in July and August. This will make them shoot and bloom most luxuriantly all the autumn."

We should be glad to receive, from any of our correspondents, remarks upon the above subject.

J. B.

[From the Schenectady Reflector.]

Flax Growing—The impression has gone abroad among farmers that the raising of Flax is unprofitable, from the fact that it leaves the soil in an unproductive state, unfit for raising a crop the following season. From whence this impression originated I am unable to determine, unless it is from the fact that the same piece of ground will not produce good flax several years in succession. Those who have taken pains to

inform themselves by experience and observation, have ascertained that flax does not impair the soil and render it less productive, as many suppose, but on the contrary it is rendered more productive.

In a conversation with an intelligent farmer the other day, he stated that he had raised flax and barley in the same field; that in the fall he ploughed and sowed this field to winter wheat, and that the wheat on the flax ground grew nearly a quarter larger than that on the barley ground, and yielded in the same proportion when thrashed and cleaned out. The same gentleman also informed me that some years ago, when flaxseed was worth only \$1 per bushel, he sowed 6 or 7 acres, and kept an accurate account of the expense of ploughing, sowing, harvesting, &c. which he deducted from the proceeds of the flax and seed, and found a nett profit of \$35 per acre.

The foregoing induces me to submit the following problem, for the solution of all concerned:

If flax-growing is as beneficial for preparing the soil for other crops as is represented above, and if land, well cultivated, will produce a crop of flax worth \$35 per acre, over and above the expense of cultivation, &c. and that too when flaxseed is worth only \$1 per bushel, what other crop can be put in the same soil equally lucrative, especially when the seed is worth \$1 50 per bushel? E.

CULTURE OF CORN.

The following detail of the result of experiments in the use of different kinds of manure in the culture of corn, is highly interesting. The astonishing effect of *coal ashes* is truly so, going as it does to establish the superior virtues of that article as well as its happy adaptation to the corn crop.

[From the Zanesville Gazette.]

Messrs. Editors—Believing in the policy of communicating through the public papers the result of experiments in our several occupations, that all may be profited by the experience of each, I wish to communicate through your columns the result of an experiment which I made last year upon a lot of two acres of corn. The land was of uniform quality, being a light sandy loam, which had been in timothy meadow for many years.

The first half acre I manured by putting a shovel full of sheep manure into each hill—the second by putting a shovel full of chip manure to each hill—on the third I used a shovel full of manure from the barn-yard, or rather a mixture of fine manure and earth, obtained by ploughing the yard after removing the long manure—on the fourth I used the same quantity of stone coal ashes, being a mixture of well rotted and fresh ashes.

The corn was dropped carefully upon the manure, and throughout the whole lot pumpkin seed were dropped with the corn. On the part manured from the sheep yard not a stalk of corn made its appearance, though the pumpkins grew well; and indeed in the pumpkin crop there was little difference; it was fine throughout. Between the produce of the portions on which chip yard, and barn-yard manure had been used, there was no observable difference, both was a good yield, say 50 bushels per acre; but the

yield on the part manured with coal ashes was at least at the rate of 100 bushels per acre. No accurate measurement was made, but the relative quantities were readily ascertained.

The above are the facts of the case, and I should be pleased to hear the views and experience of some of my fellow farmers; for if coal ashes are really so valuable as a manure, it is time that the farmers of Muskingum should know it. I have tried coal slack on clover and found it to answer a valuable purpose. I should like to have an essay on the nature of coal ashes as well as on the above experiment generally, by the editor of the *Genesee Farmer*.

A MUSKINGUM FARMER.

April 2d, 1837.

MARKET FOR SILK.

We commend the following article from the *Silk Worm*, to the attentive perusal of all friends of the Silk cause, and especially to those engaged in its manufacture to the eastward. It is nearly two years since that we suggested the same thing, but was met with an opposition in a quarter we but little dreamt of. The experience of every day since then, has, however, convinced us of the propriety of the measure we then recommended, and we are happy to find we have so able an ally as is our good old friend Blydenburgh.

MARKET FOR SILK.

It is a subject much to be regretted, that at this critical period in the young silk business in this country, some measures are not adopted to furnish a market for silk. A spirit bordering on enthusiasm for growing silk is now fairly excited and awakened, ready for action, through every section of the nation. If no discouragement is thrown in its way, it will produce an era in our history of more importance than any other subject of a commercial or agricultural nature ever did or ever can. Many have the business fairly begun, and tens of thousands are waiting with anxiety to see the result, and ready to embark in it with ardor, should that result prove favorable.—That all who undertake it with any tolerable degree of ingenuity and perseverance, will succeed in growing the silk to immense profit, no one who has even a slight knowledge of the business, will entertain a doubt. But when the silk is produced, if a market cannot be found for it, it will be of no use to the producers, and discouragement will be the result. When the business shall be so far advanced that individuals have large quantities for sale, its value is so great in proportion to its bulk, that no great inconvenience will arise in transporting it one or two hundred miles; and by that time, the establishment of manufactures in different parts will render such transportation unnecessary. But at present it is in its earliest infancy, like a child which has not strength or skill to walk. Persons who have grown a few pounds as a mere experimental beginning, cannot afford to carry it through two or three states to find a market, and if they cannot find one nearer home, they will not generally reflect on the cause, or advert to the future, but will conclude that if they cannot now sell a small

quantity they will be unable hereafter to find sale for a larger quantity.

Perhaps the silk manufacturer or the vender of silk will say, that is nothing to me; if silk is not grown here I can import it. But a spark of patriotism, if not of self-interest, would awaken a different feeling. If those who are in want of the article for manufacturing merchandize, would take a little pains to appoint agencies in different parts of the country, who would purchase at a fair price the small quantities this year, they would be followed by larger quantities next year, and in a short time the agencies would become sources of profit to those who establish them, besides encouraging a business of immense profit and importance to the country at large.

The difficulty of transporting cocoons a great distance to market is still greater, owing to their great bulk. But if two or three filatures should be established in the state of New York, and a proportion in the other states, there would be even this year considerable quantities of cocoons presented to keep them in operation, and the reeled silk might be easily transported to wherever wanted. For want of some market, either for cocoons or for reeled silk, or for both, many will be discouraged and abandon the business, and many others will twist up their silk into sewing silk, much of which will be but an indifferent article, though made of choice material, when that which is first rate might be made of silk of an inferior quality, as is done in Italy, and besides the market will soon be glutted with sewing silk, and it will become a drug.

It is true, an almost incredible quantity of sewing silk is used in the country, and much of this, owing to the general inferiority of the American article, is imported from Italy. But with proper management the business would naturally find a correct channel, and would be right. If small agencies were established through the country to take the small parcels of reeled silk at a fair price, and always at the time of such purchases giving such instructions as were found necessary, with respect to reeling, that most important branch of the business would be improved. A sufficient number would go extensively into the business of manufacturing sewing silk, and would soon produce it in perfection, while those who for want of information are now making it very imperfectly, it would turn their whole attention to reeling, and improve accordingly.—Ed. S. W.

SOMETHING CURIOUS.—Our attention was attracted a few days ago by a contest between a *Crow* and a *Rabbit*. The latter had young ones, which the former was endeavoring to obtain, possibly "to feed her young." The manoeuvring on both sides would have done honor to more scientific practitioners in the art of war; and the dodging movements of the quadruped, the advances, retreats, and ambuscades, rivalled those of *Oseola* himself. After a contest of more than an hour, the crow "winged his weary flight," and left "poor puss" "alone in her glory,"—for during the battle the young ones had disappeared. That they were not taken by the Crow is very certain—and we hope that the maternal instinct, which was evinced in the brave defence of the infant brood, was rewarded by a re-union with the objects of her care.—*Kent Bugle*.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	8 00	8 50
CORN, yellow.....	bushel	90	92
White,.....	"	85	86
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	10	13½
Louisiana 20a21-Alabama	"	—	—
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's.....	"	—	—
SuperHow. st. in good de'd	"	8 75	9 00
" wagon price,.....	"	—	—
City Mills, super.....	"	7 50	8 00
Susquehanna,.....	"	9 00	—
Rye,.....	"	6 50	6 75
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,.....	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	—	3 00
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	12 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 00	6 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	17	—
second,.....	"	13	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	47	48
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	2 85	—
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	87	90
Susquehanna,.....	"	—	none
Tobacco, crop, common,.....	100 lbs	2 50	3 00
" brown and red,.....	"	3 50	5 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	—	—
" ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 45	1 55
Red, best foreign,.....	"	1 45	1 55
fair to good Md. 100a130, inferior	"	—	—
WHISKEY, 1st pf. in bbls.....	gallon.	37	—
" in hhds.....	"	35	do
" wagon price,.....	"	—	—
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 25	—
To Wheeling,.....	"	1 50	—
Wool, Prime & Saxon Fleeces,.....	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

REMARK—The prices are but nominal, as there are but few transactions.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	11	12
Shoulders,.... do.....	"	11	11½
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	8½	8½
BUTTER, printed, in lbs. & half lbs.	"	25	37½
Roll,.....	"	25	31½
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	7 00
Cows, new milch,.....	"	26 00	40 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87½	—
CHOP RYE,.....	"	1 75	1 87½
EGGS,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna, barrel.	"	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	2 75	—
Mackerel, No. 1, ————No. 2	"	9 50	10 00
No. 3,.....	"	—	5 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	per	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgin.	2
Other Branches,.....	do	Bank of Virginia,.....	do
Branch at Fredericksburg do	do	Branch at Fredericksburg do	do
Banks in Baltimore,.....	par	Petersburg,.....	do
Hagerstown,.....	½a	Norfolk,.....	do
Frederick,.....	do	Winchester,.....	do
Westminster,.....	do	Lynchburg,.....	2½
Farmers' Bank of Mary'd, do	do	Danville,.....	2
Do. payable at Easton,.... 1	do	Bank of the Valley,....	do
Salisbury,.... 2 per ct. dis.	do	Branch at Romney,....	2½
Cumberland,..... 3	do	Do. Charlestown,....	2
Millington,..... do	do	Do. Leesburg,.... 2	do
DISTRICT.		Wheeling Banks,....	4
Washington,.....	do	Ohio Banks, generally 6a7	do
Georgetown,.....	do	New Jersey Banks gen.	5
Alexandria,.....	do	New York City,..... 1	do
PENNSYLVANIA.		New York State,.... 3a4	do
Philadelphia,..... ½a	do	Massachusetts,.... 3a3½	do
Chambersburg,..... 1	do	Connecticut,.... 3a3½	do
Gettysburg,..... do	do	New Hampshire,.... 3a3½	do
Pittsburg,..... 3½	do	Maine,..... 3a3½	do
York,..... 1	do	Rhode Island,.... 3a3½	do
Other Pennsylvania Bks. 4	do	North Carolina,.... 6	do
Delaware [under \$5].... 6	do	South Carolina,.... 8a10	do
Do. [over 5].... 2	do	Georgia,..... do	do
Michigan Banks,..... 10	do	New Orleans,..... 15	do
Canadian do,..... 10	do		

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the county. It is remarkably healthy and handsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; cash will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

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Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO. June 6 4t

13,000 MORUS MULTICAULIS TREES.

The subscriber has received 13,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t. Baltimore, Md.

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Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herd Grass Seed.

J. S. EASTMAN.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landre h of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution.

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J. S. E.

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Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 7.

BALTIMORE, MD. JUNE 13, 1837.

Vol. IV.

THIS publication is the successor of the late
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and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 13, 1837.

THE MULBERRY CULTURE IN N. JERSEY.

During a temporary visit to Burlington, New Jersey, last week, we were pleased to learn that several individuals and companies, in that vicinity, were either engaged, or about to engage, in the culture of the mulberry with a view of entering extensively into the silk business. Gen. G. D. WALL, one of the U. S. Senators from that state, with a public spirit, and patriotic zeal, worthy of the distinguished station he holds, has commenced the transplantation of the *Morus Multicaulis* on his estate near Burlington, and from his well known character for perseverance in the pursuit of laudable ends, there cannot be a doubt that success awaits his generous effort to give an impetus to this new branch of agricultural industry. His mulberry orchard, we learn, will be under the management of Mr. Chauncey Stone, and was planted under the joint superintendence of that gentleman and Mr. Gay. The latter of these individuals is the inventor of an excellent *Silk Reel*, and is advantageously known to the eastward in this particular branch of business. Mr. Stone is also from the east, and doubtless has an experience that will prove eminently profitable to him in his present location.

There is another establishment on an extensive scale, situated about two miles from Burlington, on the Jersey side of the Delaware, owned by the Messrs. Cheney. These gentlemen are also from the east and are intimately acquainted with the culture in all its details. We had intended to visit their establishment, but circumstances intervened to prevent it, the which we regret the more, as we are confident, from the experience and intelligence of the Messrs. Cheney, that we should have found much to admire, and gained no little knowledge from an interview with practical men of their attainments.

Other individuals of wealth and enterprise in

the neighborhood of Burlington, taking courage from the examples around them, will, we understand, embark in the business the next season.

Our stay at Burlington was short, and, therefore, cannot speak as advisedly as we could wish; but judging from the best lights we could obtain, we are clearly of opinion that its locality, soil and climate, are all happily adapted to the successful prosecution of the silk culture in all its various branches.

PROSPECTS OF THE GROWING CROPS.

We were gratified to find a few days since while travelling through parts of Delaware, Pennsylvania, and New Jersey, that the growing crops of wheat, rye, oats and corn, have been greatly improved by the fine rains of May, and bid fair to yield generously. It is a fact which does not admit of a question, that much of the wheat sowed last fall was winter-killed; but it is equally true, that a large portion was left unscathed by the vicissitudes of the season, and that what was left will be sufficient to give more than an average crop in the district of country through which we passed. In that fine region known in Philadelphia as the "Neck," the wheat crops are, indeed, excellent. From several other parts of the state we learnt, that great improvement had been effected by the delightful growing weather of the last month, and that although in some places the fly had made its appearance, a very fair average crop may be expected.

We regret, however, to have to add, that the prospects for a crop of wheat on Elk Ridge, and Carroll's Manor, in this state, never were more discouraging than they are at the present moment.

The crops of *Rye*, though not large, look remarkably well, and we doubt not, will turn out a fair yield.

Of *Oats*, it may be said, more has been put into the earth, the present season, in Maryland, Delaware, Pennsylvania, and New Jersey, than for many previous years, and unless some unpropitious circumstances should occur, a largely increased product may be expected.

Corn—The fields of corn that passed under our observation, in all directions, looked well; and we may add, that wherever our inquiries have been made, there is but one opinion, and

that is, that a greater quantity has been planted this than any previous year. Should the season be one of showers and warm suns, for a few weeks, this crop will prove, probably, the largest ever grown in America.

We append the following notices from our exchange papers:

Crops in Virginia—The Norfolk Herald of Wednesday, says, "in our own state too we have assurance every day that the prospects of the agriculturists are quite favorable. The wheat in the upper country it is now believed will turn out an average crop."

The Crops—The York (Pa.) Republican, says—"We are happy to say that the prospect of a good harvest is now very favourable. In this vicinity, a most decided improvement has been wrought in the appearance of the grain fields by the late copious rains, and the farmers speak in very encouraging terms of their anticipated crops. We do not suppose that Wheat will be so abundant, as it has been in former more auspicious seasons; but it will probably yield an average quantity, and will certainly do far better than was expected in the early days of spring. Our exchange papers from various parts of the state speak of similar prospects in their neighborhoods."

The growing Crops—The Danville, (Va.) Reporter, says—"The late genial rains have brightened the before cheerless prospect of our farmers, in some degree. The wheat crop, which in consequence of the long continued drought was very unpromising, is improved so much that some think there will be an average one. The oat crop is also improved considerably—indeed every thing has felt the reviving influence of the present seasonable weather."

The Crops—From various parts of the country (says the Fredericktown, Md. Examiner,) reports have reached us in regard to the growing, grain, of a favorable character. In this county, contrary to the hopes entertained that a favorable season would improve it, the Wheat crop will be a most decided failure. The rye in many places will probably be an average crop, which, together with the very large summer crops in the ground it is hoped will, in some measure, supply the loss which must be felt in consequence of the failure of the wheat crops.

The Wheat Crop—The Caroline (E. S.) Advocate of the 3d, says—"We conversed with several intelligent farmers the present week, on the state of the wheat crop in this county, and we were gratified to learn that the prospect is much more flattering than it was the early part of the season. We have heard no complaints about the fly, and should the season remain favorable, the crop will be much more abundant, than from the cold and unfavorable spring, was anticipated. One

gentleman, who seeded sixty bushels, informed us, that about 40 bushels of his seeding looked as promising as his wheat crop had done in any former year."

The Crops—The Centreville Times, says—"The weather for the week past has been very favorable to vegetation. Wheat has improved, however, only a little—the Rye presents a good deal better appearance since the last rains. The oats generally came up badly, although what are on the ground has a healthy and thriving look. Farmers are either cultivating or ploughing their corn, and it begins to put on a beautiful appearance."

The Crops—*The Prospects before us*—From all sections of the country, says the Hagerstown Torch Light, our intelligence in relation to the crops, begins to brighten. The late seasonable weather has produced a decided change for the better, in the appearance of the growing wheat and rye, in almost every section from which we receive exchange papers. In many regions of our county the crop is represented as being very promising, in others as indicating an average yield, and in all quarters as being decidedly better than last year. We have seen some wheat fields in our neighborhood that look well, and will probably turn off twenty to twenty-five bushels to the acre—others will probably yield half a crop—and others again are very unpromising. The early sowing of last fall generally promises well, and the spring wheat wears an encouraging appearance. The oats and corn, though a little backward, look strong and healthy.

The Crops—The Winchester Virginian says—From every region of the country we continually receive the most flattering accounts of the appearance of the crops. In our own immediate neighborhood the prospect has considerably brightened within the last few weeks. Every thing looks well except wheat, and even of that more than a sufficiency will be made for the consumption of the country. Thus a ray of sunshine gleams through the dark clouds that hang over us.

The Crops—The Oneida, N. Y. Whig, says—From all parts of the country we have cheering accounts of the prospects of an abundant harvest the ensuing fall. The late rains have had a very beneficial effect.

We conversed on Saturday last, with an intelligent farmer from Kent county, Maryland, who assured us, that although much less wheat had been sown last fall than for many previous years, there was every prospect of a fair average crop; that the oats looked remarkably well, and as very heavy crops were put in, if the weather continued favorable, the product must be greater, in the aggregate, than in any former year, and that from the present appearance of corn, a very large yield was anticipated.

The legislature of Ohio, at its late session passed five acts granting charters to that number of silk companies, and three incorporating companies to cultivate the sugar beet. While Ohio, one

of the young members of the confederacy is acting, and furnishing an example worthy of all praise, many of her elders are listlessly looking on, either caring nothing for the cause of agriculture, or afraid to discharge their duty with fidelity.

Judge Ambrose Spencer, of New York, in a letter to F. G. Comstock, esq. thus briefly speaks of the Mulberry culture:

"I remain firm in the faith, that the culture of silk must be a richly remunerating business, and worthy of all encouragement."

When a man like Judge Spencer, venerable for his age and distinguished alike for his public and private virtues, thus speaks, the justness of his remarks should, as it doubtless will, have additional force. For ourself, we have never entertained but one opinion, and that is, that it is the most lucrative branch of human industry that Americans can enter into.

AGRICULTURAL SURVEY.

It will be seen by the subjoined article that the Rev. Henry Colman, of Massachusetts, has been appointed by the legislature of that state to make an agricultural survey. The benefits to result from the exploration of the resources of the state by a gentleman so eminently qualified by his practical and scientific attainments for the task which will devolve upon him, can but redound to the benefit of the community, and we look forward with fond anticipations to the result of his labors. And while we feel proud that the choice of Massachusetts has fallen upon so capable a gentleman, we can but congratulate her citizens that to the wise and enlightened policy of their legislature, they will be indebted for the development of facts connected with the physical capacities of the commonwealth, which must prove highly advantageous to their prosperity and welfare.

"An Agricultural Survey of this state, [Mass.] has been authorised by the legislature. Rev. Hy. Colman, eminent for his scientific researches in this department, has been appointed by the Governor to perform the work. Massachusetts is far in advance of her sister states in scientific and practical explorations of the resources of her territory. The sea and the dry land have been examined and their treasures disclosed. The mountain and the valley—the rocks visible to the eye, and the quarries which lay buried beyond its reach, have all been brought out to the light of scientific observation. The mineralogical and geological formations in Massachusetts and the treasures which lie hid beneath, as well as those scattered over the surface of our state, have been assiduously brought out by Prof. Hitchcock. Mr. Colman has an equally arduous and important duty to perform."—*Northampton Courier*.

ADDRESS

OF

JAMES RONALDSON, ESQUIRE,
TO THE
Farmers of the United States.

We give place to the following address of James Ronaldson, Esq. of Philadelphia, with feelings of great pleasure. The suggestions he makes are worthy of great consideration, written as they are under feelings of the purest patriotism. Those who know this excellent gentleman will justly appreciate his motives, and to those who know him not, we would observe for their information, that he is in the true sense of the terms, one of the very best men, and exemplary citizens of which our country can boast.

[From the Pennsylvania Inquirer.]

TO THE FARMERS OF THE UNITED STATES.

GENTLEMEN:—In October, 1836, I advertised that some seed grain had been ordered from Europe. Out of this grew a correspondence with different persons living in various parts of the country; in replying to these letters, the one that follows was written to Mr. Wood, of Kennebec.

As the letter takes notice of the influence that altitude exercises over vegetation, and a new practice in farming, its publication may entertain some, and suggest to others new modes that may prove profitable to themselves and beneficial to society.

In matters of this kind it is necessary that every farmer should himself judge how far what is proposed in a new project is applicable to the circumstances in which he is placed, and then ascertain the fact by practical experiment.

There ever must be many improvements to be made in Agriculture, the value and extent of which can only be come at by practical experiment, and the following suggestion belongs to this class. And the object of this publication is to bring the plan of sowing Wheat in June, July, &c., under your consideration, and if in your opinion it should appear feasible to procure for it the ordeal experiment.

Yours, respectfully,
Philadelphia, May 20, 1837.

J. R.

PHILADELPHIA, May 4th, 1837.

SIR—Your favor of April 10th was duly received, and would have been earlier replied to, had circumstances permitted, its subject matter meriting particular attention.

By the newspaper, "Pennsylvania Inquirer," of March 20th, under the ship news, it is stated that the "Brig Carth, from Greenock, for New-York, had been abandoned at sea—crew and passengers saved." The seed I was importing was on board that vessel.

To procure seeds of good quality and kind, likely to be serviceable to our agriculture, is attended with considerable trouble, and I have made no arrangement for renewing the order.

By your letter, I see that there is a society in Maine, desirous to improve the resources of the Farmer. The press is now so attentive to keep

us in a state of *party* excitement about Presidents, office-hunters, &c., and acquainted with all the murders, lynchings, and villanies that are injuring and disgracing our country, that with all its boastings of importance, it is too seldom found in the service of the people, in showing us the men, whose good conduct renders them worthy of the country's notice, and apart from party purpose, the press gives us very little information of national policy or local improvements. I am mentioning these things, because though we have many newspapers, yet they tell us little of the useful affairs of the country; and it is only from verbal accounts I have been informed that little wheat is grown in Massachusetts, and the more eastern States. But why wheat does not thrive there, I have not heard explained. For my part, I am not disposed to credit the report, and I entertain the opinion, that there must be a system of Agriculture, suited to that climate, and calculated to render wheat raising a profitable business; and, replying to your letter, offers an occasion on which we may speak of what has been done in other countries; and amongst those gentlemen you are associated with, for the purpose of improving our Agriculture, there will be many qualified to investigate the subject to which this letter relates; and some whose desire is to arrive at the fact, will try the experiment, and by that means procure the decision, which nature and experience only can give.

Wheat, of good quality and abundant crops, is raised in the neighborhood of St. Andrews, in Scotland, and even further north. Now St. Andrews is in about 56 degrees of north latitude, and east of Connecticut river there must be millions of acres of land, equally as good in quality, as are the wheat lands of Scotland. The climate here, is more favorable than that of Scotland.—Let us inquire into the practice followed there and in other countries, and by comparison, endeavor to discover a system that is to improve our own agriculture.

In the Scots' portion of the Island of Great Britain, there are large extents of mountainous and high lands, that, in consequence of this height, are so cold and wet, that even oats cannot ripen upon them. Between this high land and the sea, there are extensive tracts of low land, [such as the land between Philadelphia and the Susquehanna is by the road to Lancaster,] gradually undulating and declining towards the sea. Of this, there is a good specimen in the tract that extends from Pentland hills northward, to the shore of the Forth, an arm of the sea, about seven miles broad; from the bottom of Pentland hills to the sea, is about seven or eight miles. In this short distance, viz: seven or eight miles from the sea, to the foot of the hill, there is a very considerable rise in the surface of the land. The exact amount of this rise, it has not been my fortune to have seen stated, though as the city of Edinburgh is supplied with water from these hills, there must exist accurate measurement, a knowledge of which would be useful to us on the present occasion, and in its absence renders it necessary to refer to facts that are on memory, and are applicable to the object of this letter, viz: inquiring into the usages of other countries, for the purpose of discovering the means of improving our own.

In the space that extends from Pentland hills to

the sea, the effects of altitude on vegetation, are distinctly presented to the eye and understanding in one single view. The ripening of grain commences at the sea side; there are to be seen, the yellow fields, and the reapers, and in the distance, farther inland and higher up, the crops are later and later; and after the fields are entirely harvested, in the space between Edinburgh and the sea, the oat fields around the village of Killeath are still green, for Killeath is the verge of the grain growing climate, and too high for wheat. It was so in 1790; I have not heard that any improvement in the past 40 years, has extended the cultivation of wheat beyond the altitude of that period.

If the American tourist was to pay some attention to matters of this kind, he could render himself useful to his country; he could make us acquainted with what other people can do, and enlarge our own field of industry, and range of resource.

The principal object of this letter is to consult you on a plan of cultivating Wheat, that may give the Farmer an increased chance of good crops, and also to extend the cultivation beyond its present limits.

As any conclusion we may, by reasoning, come at, can only prepare us for practical experiment, it will be sufficient to state a few facts, to give the idea of what the experiment should be. In the Parish of Crichton, in the county of Edinburgh, there is a farm called the Saughland, the surface of which is a gently inclining plain, distant from the sea about 12 miles in a straight line. Its position is north of the Lammermoor, and east of the Pentland hills. This farm is compact, and contains about 500 English acres, and is on the boundary line of the wheat region; for it is only on the lower part, or one third of the whole, that wheat could be cultivated in 1790. On this farm, I know, that from the time of sowing to the commencing to reap wheat, the period was about 13 months, no less than one year and one month. The grain was large, but coarse in quality; not so valuable as that grown on the lower lands, but the quantity was great, differing very little from the crops grown in the more favorable climates. The coarseness of the grain, was not all owing to the coldness of the climate, but in part to its sweetness. The hills in the vicinity attract the vapors, and induces the rains to commence sooner in their neighbourhood, and continue longer, than in places at a greater distance from the hills.

It is from recollection, I have to give you these observations, made many years since, and consequently, we have not that precision that is so desirable in matters of this kind. It would be very useful for us to know the exact distance that Killeath, and the farm spoken of, are from the sea, and their height above the level of the ocean.—This, I have no recollection of ever having seen stated, but that of Killeath, we may presume, has been accurately measured, because it is from the hills in its neighborhood, that the city of Edinburgh is supplied with water.

These circumstances have been recalled to memory, by some accounts I have lately heard, of a new practice adopted in some parts of France, which is, that they sow their wheat in June, and mix it with the two-rowed barley, a grain that vegetates and grows with great rapidity, and is too

delicate to resist frost. The wheat, and its companion, the barley, are both mowed down in the fall, and fed off to the cattle.

The practice of the Scottish farmers in the higher districts, and what we are told of the French having carried the practice still farther, and made an improvement, by sowing in June, and mixing it with barley, suggests to the making experiments to ascertain the result in our own country. It is very desirable that our farmers should, this very season, try the sowing of wheat, mixed with barley, so early as June; that if it answers, the practice may be adopted as soon and as generally as possible. The two rowed barley must be preferable to all other grains, on account of its rapid growth, and the certainty that it is to be killed by winter. Grain that may in part survive winter, would mix with, and injure the value of the wheat. In the next place, we have not been in the practice of sowing two-rowed barley; there will be some difficulty in procuring it for the mixture, and should it prove that the June sowing is an advantage, there will be a necessity for raising or importing this kind of Barley. The wheat that remains in the stubble, after reaping the June sown grain, forms the crop that comes to maturity in the succeeding year.

Of late years, from some cause, even in the best wheat districts, the wheat crops have been very moderate, and precarious. Be the cause what it may, perhaps, early sowing will mitigate the evil; and the presence of the barley may attract the attention of the Hessian Fly, and thus protect the wheat from the ravages of that insect.

To extend the cultivation as far north as possible, render the crops more certain, in the wheat districts, and protect it every where from the destructive effects of the fly, are objects of great importance, and ought to secure the attention of farmers to this, and all projects that are recommended to us by their feasibility, and experiment is the only test to be relied on, as to utility; and the fact of wheat having been in the ground for 13 months, and the accounts of sowing in June, along with barley, warrant the presumption, that the plan may succeed here; and will induce experiments on a moderate scale, to be made all over the United States.

Where two rowed barley cannot be got, four rowed (viz. bear) should be used; and in the absence of both, employ oats; and should it happen, that part of the oats, or the four rowed barley survives the winter, their mixing with the wheat will injure its market value, but this cannot mar the experiment.

I hope that yourself and associates will give to the subject your serious attention, and as the season for early sowing is at hand, proceed with as much expedition as the nature of the business will permit. As for this communication, you are at liberty to make such use of it as appears most likely to promote the object we have in view.

Very respectfully, yours,

JAMES RONALDSON.

ELIJAH WOOD, Esq.

Kennebeck County Agricultural Society.

P. S. To guard against giving to you a project founded on false principles, I submitted the preceding to a friend, in whose good sense, agricultural knowledge, practical and theoretical, I have full confidence. I find his opinion in favour of

early sowing, and considers the plan of sowing in June, July and August, worthy of your attention. At his instance, I request your attention to the fact, that the presence of lime is an essential constituent, in a good wheat soil, and that if this element is absent in your *lands*, he advises the farmer to manure with lime; for further particulars, he refers to the May, 1837, number of the *Farmer's Register*, published in Petersburg, Virginia. My friend recommends that the land, for early sowing, should be well prepared, and made mellow by repeated ploughings, and he thinks the stable, or other manure, should be put on, as a top dressing, at the commencement of winter.

PEACH TREES.

The following observations on the insect, which is so destructive to peach trees, are taken from Say's *Entomology*.

The egg is oblong, dull yellow, and so small as to be only discernible by the naked eye. Excepting when confined, the female has rarely been seen in a state of rest, and then she is observed perched on a leaf, which is possibly the place of deposit; though he is inclined to the belief, that the egg is laid on some part of the bark of the tree. The young insect, or larva, is of a white color, the head being of a reddish brown. It is difficult to discover the movement of the larva, in consequence of its small size, but its destructive career certainly commences about the last of September, or early in October, by its entering the tree through the tender bark, under the surface of the soil. After having passed through the bark, it proceeds downward into the root, and finally turns its course towards the surface, where it arrives about the commencement of the succeeding July.

Having attained its full growth, the larva changes to the pupa state, between the first and middle of July; enveloped in its covering, it may then be seen close to the trunk, surrounded by the gum which oozes from the wound. In this state it continues from the tenth of July to the latter part of that month, or beginning of August. Mr. Worth examined his fruit trees on the tenth of July, when he obtained 20 of the coverings, and about 30 larva or grubs, which had all arrived near the surface of the ground, for the purpose of undergoing their great change into winged insects.

Against the depredations of this insect, remarks Mr. Say, many supposed remedies have been prescribed, such as the application of hot water, tanners' bark, and flour of sulphur to the root of the tree, and soft soap and lime wash to the trunk; but it is obvious that no application of this kind can injure the insect, without coming in contact with it whilst it remains in the egg, or infantile state, on the outside of the tree, for having penetrated to the interior, no superficial application can affect it. The various substances placed around the root of the tree, such as ashes and sand, the uncovering its base during the winter, and covering again for the summer, are all inefficient, and even injurious to the health of the trees. Mr. Worth recommends the practice pursued by careful gardeners, to take a brick-layer's trowel early in the month of July, and opening the ground around the trunk, the lodgement of the

insect will at once be discovered, by the appearance of gum, and it can at once be destroyed.—More effectually to destroy them, he advises, that from the first to the middle of August, some swing tow, a piece of hairy hide, the hair inside, but turned over at the top, be tied close around the trunk of the tree, the under edge being just covered with earth, so as to prevent any passage beneath; about the middle of September remove the bandage, and immediately give the whole trunk of the tree a covering of soft soap or lime wash, well brushed on, that no spot from the top to the root may remain untouched. Either this mode of treatment, or a bandage of tobacco leaves or stems, ought to be applied about the first of September, and kept on till November.*

Another cause of the decline of peach trees, is the not stirring up the ground. This occasions the disease called "the yellows," which is often prevented by simply ploughing and keeping the earth free and clear from grass. Mr. Gilliams, of this city, states, that he has found great benefit to his trees, by opening a small basin around the trunk of the tree, and filling it with the ashes of common anthracite coal.† His trees, treated in this manner, assumed a more healthy appearance than others, and were not at all infested by the insects. In the *American Farmer* it is stated, that a coat of lime-mortar, about half an inch thick round the body, with the earth drawn to it, is highly efficacious. Mr. Say thinks this most useful.

We make no apology to the lovers of good peaches for occupying so much space with this subject; it possesses interest for both farmer and citizen, and will tend to prove, we hope, that the labours of naturalists are not wholly without utility.

** Remarks by the editor of the Farmer and Gardener.*

It appears to us that, if, in addition to the bandage here spoken of, the roots of the tree were bared and a moderate quantity of tobacco stems were deposited around them and covered up, the application would prove a highly judicious one, and act as a barrier to the insect that preys upon the roots of the peach tree. Tobacco, as it is well known, except to the peculiar worm that feeds and fattens upon its luxuriant foliage, is a noxious weed to nearly the whole insect tribe, and in many instances have proved to be an effectual preventive to the ravages of some, which would, otherwise, have been destructive. The moth, for instance, which so delights to browse on woolens, is rendered perfectly harmless wherever the precaution is taken to place a handful of the forbidden plant among such goods.

† The cinders of Bituminous coal will answer equally well.

Agriculture.—One effect which it is supposed the present state of the times will have, may be looked upon as decidedly advantageous, and that is now in the greater attention which it is proba-

ble will be given to agricultural pursuits. The fertile, uncultivated lands, with which portions of our country abound, have been too much overlooked, and we presume will be more carefully looked after. The life of a farmer, has more attractions, by far, and more solid, substantial comforts than the multitude seem willing to concede. Too many have, of late years, left its quiet and healthful pursuits, to crowd into the already overcrowded cities; forsaking, with most perverted tastes, the green fields and fine atmosphere of the country, for the dust and noise, and confined air that is found in streets and alleys.

We think attention will be now strongly turned to the cultivation of the soil, by thousands whom the embarrassments of the times have deprived of employment, and as a consequence, provisions of every kind, will be more abundant, and cheaper. It is time the current should set the other way, and if the distress under which the whole country now suffers, has the tendency to divert labour into its more appropriate channels, we may find that even this affliction has not been without its advantages.—*U. S. Gazette.*

METHOD OF DESTROYING WOLVES AND CROWS.

An extensive farmer of Kentucky has very politely furnished us with the following method of destroying wolves and crows:

"If you think the following information would be of any service to any of your subscribers, it is at their service. I have a mountain farm that would afford excellent pasture for sheep, but was so infested with wolves that it would have been very hazardous to have risked them there. In order to destroy them, we took an old horse and bled him in such a way as to make a trail of blood for about 5 miles; we then killed him, and having stuck a great many holes in him, put about a grain of stricnine into each hole. I also removed the skin off one hip and thigh, where most of the poison was put. The skin was dragged 4 or 5 miles, coming back again to the horse. All the wolves in the neighborhood would in this way be brought by the trails to the horse.

"Several dead ones were found near the horse, and they are very scarce in that neighbourhood since. I shall repeat the experiment shortly.

"I have also killed all the crows on my farm in the same way. I took a quarter of veal, and having cut up a portion of it into small peices and mixed stricnine with them, I stuck many holes in the meat, and put one of those small pieces in each place. I also sprinkled stricnine over the meat, and then put the veal in a place where dogs could not get to it, and where the crows resorted, and in a few days there was not a crow to be seen on my farm, except dead ones, which could be picked up all over the place.

"For four or five years, I have killed *my crows* in the month of April, shortly after they had built their nests and become stationary, and am not troubled with them any more, until they begin to gather in flocks in the fall of the year.

"If a dog should by accident get poisoned with stricnine or nux vomica, an emetic of tartar will cure him. It will require a teaspoonful or more to operate."

THE GREAT ERROR OF AMERICAN AGRICULTURE EXPOSED, AND HINTS FOR IMPROVEMENT SUGGESTED.

BY THOMAS MOORE.

(Concluded.)

Thus, all my experiments and observations have uniformly tended to establish one fact, which is, that in order to insure success for a length of time, it is necessary that the soil be kept in fine tilth, and that to a considerable depth. In some parts of our rich Western country, nature seems to have effected this purpose, in great measure, without the labour of man: The earth being here covered with a fine black mould, to a greater depth than the deepest ploughing. As long as it continues in this state, the operation of the plough and harrow, will be of little other use, than burying the seed and destroying weeds. There are also two other kinds of soil, frequently to be met with in the Atlantic states, which are often preserved for a great length of time in a state favorable to vegetation, without much attention; these are, the fine black sandy soil, and the soil that abounds with calcareous earth, or lime-stone lands: Yet even on these, I believe we should find our account in a *deeper cultivation* than is usual. But by far the greater part of our country is of the kind alluded to, in the foregoing remarks.

Seeing then, such a state of the soil is absolutely necessary, it becomes the great, the most important business of the husbandman, in the first place, to produce it, and then to perpetuate it by all the means in his power. I am far from believing, that these ends can always be profitably attained by means of the plough only; but that more depends on the judicious use of that instrument, than has generally been supposed, I trust, has been demonstrated. It is scarcely needful to add, that a fertile soil is always of a dark color, and soft to the touch; and whatever applications will produce this appearance and texture, is a manure. I shall here offer a few observations on the extraordinary effects of plaster of paris or gypsum, leaving others to judge, whether this effect on the soil, is not to be considered amongst the principal virtues of manures in general.

The great effect of this wonderful substance, is visible to all; but the manner of its operation is mysterious. Among the various conjectures respecting it, some have pronounced it a powerful stimulus, which putting all the vegetative powers of the soil in action, produces one great effort, and afterwards leaves the soil barren. This reasoning (if it may be so called) upwards of twenty years experience, has proved to be fallacious. Others, with greater plausibility, have attributed to it, an attractive property, whereby vegetable nutriment is extracted from the atmosphere; and some others say, mere moisture only, is attracted; as a proof of this attractive property, they adduce the fact, that dew is to be seen later in the morning on grass that has been plastered, than on the adjoining that has not.

This theory (though apparently plausible) in my view is not without insuperable objections. I would ask in the first place, what change it undergoes in the soil, that disposes it to attract moisture more copiously than when above ground? I have not been many days without having some of it in a pulverized state in my possession, for

several years, and have often looked in different kinds of weather for that effect, and have as often looked in vain. I have never seen any thing like moisture about the substance itself, nor the vessels that contained it, neither in damp nor dry weather, more than was common to other substances; on the contrary, I have sometimes dampened some to sow, and have found it inclined to dry very quickly. It is well known, that on lands where the proportion of clay is great, it has no perceptible effect: I have also found, as well as some others, that where applied to a fine mellow soil, the effect is very little: if it operates by attraction, why not attract here, as well as in other soils? certainly both would discover the good effects of a supply of moisture in a dry time.

I would suggest for consideration, whether its effects may not be satisfactorily accounted for, on the *principle* before alluded to, as the *basis of agriculture*, a mere preparation of soil; without ascribing to it, either stimulant or attractive properties, other than the promoting a fermentation in the soil, which may be called stimulant.

On a chemical investigation of the properties and composition of this substance, two things are discovered; first, that it is soluble in water, but that the solution is remarkably slow; and secondly, that it contains a very great proportion of vitriolic acid. In applying it to the soil, I have observed, that no visible effect takes place, until after some rain has fallen subsequent to its application; that the finer it is pulverized, the quicker the effect, and the shorter the duration; the fine dust blown from the hand at the edge of the sowing, or between the casts, sometimes producing as great an effect the first season, as any greater quantity, but entirely ceasing afterwards; while the middle of the casts, where most of the coarser parts fell, will show the effect for several years, giving the crop a striped appearance: that where the soil contains a large proportion of clay, it has no perceptible effect; and that on a fine mellow soil, the effect is but very little, sometimes not perceptible. These observations I expect, have been common to many practitioners; from which I infer, that it is first slowly dissolved by the rains; that after solution, decomposition takes place in the soil; and the vitriolic acid being thereby set at liberty, to combine with any other base it may find in the soil, effervescence or fermentation (a well known effect of chemical combinations and decompositions) is from time to time produced; thereby separating the parts of the soil, and giving it that appearance and texture, which is common to all rich soils; and that this state always exists, where the gypsum takes considerable effect on the growing crops, I am bold to assert: In general it is very visible on the surface, but always by passing through it with the plough.

I might here risk an opinion, why the application of plaster to clay, fails of exciting a sufficient degree of fermentation, to effect a separation of its parts; but as I by no means profess a critical knowledge of chemistry, shall leave it to others better versed in that science, to assign the cause, and only assert the fact, that by such applications the tenacity of the soil is not destroyed, or any visible effect on vegetation produced. In an open mellow soil, great effects are not to be expected, because the state which the plaster is calculated

to produce, already, in great measure existing, leaves it little to do.

But it will no doubt be queried how I account for the appearance before mentioned of the dew remaining longer on the grass, where the plaster has taken effect, than where none has been applied? To this I answer that it is not in consequence of a greater quantity falling thereon, but because it is more slowly evaporated. Whoever will be at the pains to examine, will find, that this appearance is not confined to the plaster; but that grass growing on the ground made rich by any other means, will show the same difference, when compared with the same kind, growing on poor ground alongside of it; or if observed when the sun shines after a shower of rain (when both must be effectually wetted without attraction) the same thing will be seen, and is easy to be accounted for on philosophical principles. The soil upon which the grass grows luxuriantly and retains the moisture, is always of a darker color and softer texture, than the poor soil adjoining: it being therefore more fitly adapted to imbibe the solar rays, they pass freely into it, while they are plentifully reflected back from the hard light colored poor soil, on the drops of moisture suspended on the grass, operating in the same manner as the rays of heat from a reflector placed behind roasting meat: Add to this that the grass always grows thickest on the rich soil, which will also contribute to *prolong* the drying operation.

Where this manure has great effect, it in some measure answers the purpose of *deep ploughing*; many having discovered that *washing* ceases where it is frequently applied with advantage to the crops. This is a certain proof that the soil is opened to a sufficient depth to imbibe the whole of the heaviest rains, and thereby prevents the accumulation of water on the surface: Hence we may safely conclude, that its operation continues much deeper than the usual ploughing. This is the secret which has prevented some Pennsylvania improvers from discovering the necessity of deep cultivation. I have been told that some great *plaster users* when consulted on the subject of deep ploughing, have answered, that their crops have succeeded well with the usual depth, and therefore have not seen the necessity of going deeper. But let them cease to use the plaster, or confine their operations to a soil where its effects are inconsiderable, and then, after a fair trial of both methods, if they do not see cause to change their opinion I am very much mistaken.

Judging from the experience we have had of this manure, the judicious use of it is certainly to be recommended, while it can be had at the present low price. I prefer using it as a top dressing for upland grasses, at the rate of from three pecks to a bushel per acre. But those who substitute it for every other kind of manure and neglect all other means of improving their lands, will probably one day find that they are not so far advanced in agricultural knowledge as their present success may lead them to suppose.

I am acquainted in some neighborhoods, where the farmers are fast increasing in wealth; their crops having nearly doubled within seven years, and the face of the country astonishingly changed for the better; and yet I do not believe they have made much progress in substantial agricultural knowledge. Accident has put them on the use

of *gypsum*, and this has done every thing for them that is done; if accident should again deprive them of it, they will probably, in a few years, find the quality of their soil and quantity of produce nearly the same they were before the use of it.

This however is far from being the case with all who are in the practice of using it; there are in America, men of observation, of genius and industry, who are making the best use of this valuable foreign manure, while it is in their power; but at the same time, are paying such attention to the principles of agriculture in general, that if this should be immediately withheld from them, they would, nevertheless, be found in the high road for improvement, and some of them perhaps already in possession of the secret, of preserving their farms for any length of time, in a productive, and even improving state, without any foreign assistance whatever.

Before I leave the subject of *gypsum* I would just observe, that although I think highly of Richard Peter's publication on this subject in general, yet I cannot unite with him in believing it a "whimsical substance;" on the contrary, I believe it to be as perfectly regular in its operations as any other manure, when applied to soils upon which it is capable of acting. The quantity of moisture it receives, will no doubt, in some measure, govern the effect, but this I believe will be invariable: the same causes in this, as well as other manures, uniformly producing the same effects: In short, I have never yet seen any of its effects or failures, but what may be accounted for by the foregoing theory.

I have recommended some agricultural publications written in our own country, in preference to any European authors, because I think they are more to be relied upon in American practice. General principles are the same in all countries; but in their application, the soil, climate, and a number of local circumstances, ought always to be taken into consideration; to which it is but too evident my countrymen have not been in the habit of attending.

In Great Britain, their practice is acknowledged to be more perfect than in any other part of Europe, and yet a late author is of opinion, that their tillage land in general, does not produce more than one-third of what it is capable. They are not subject either to the excessive heavy rains, or hot dry weather that we are; absolutely requiring with us, a greater depth of cultivation to counteract the bad effects of the climate on the soil; and yet their ploughing is deeper than ours; and the probability with me is, that this remains to be one material point in which they have yet to improve. I am told that about London and other places where land is very dear, their gardeners find their account in once at least, stirring their ground from two and a half to three feet deep.

I shall conclude these remarks, with observing, that although I think *deep culture* a matter of the first importance in this climate, yet there are other subjects which ought to engage our attention more closely than the appearance of our country indicates they have hitherto done. Among these are an economical choice and consumption of crops, for the support and fattening of live stock, and methods for the saving of timber. With re-

spect to the first, it is certain, that one half the ground, and half the labour, generally appropriated to the purpose, is amply sufficient; or what is the same thing, the same ground and labor may be made to support and fatten double the number. It is also demonstrable, that half the quantity of woodland generally thought necessary for fuel, fences, &c. will, with proper management, be sufficient; this will also be a saving of labour in nearly the same proportion. But as I have already exceeded the limits at first contemplated, and very probably have written more than some who have the *most seed* will be willing to peruse, I shall at present spare myself the labor of adding any thing further on these subjects, and thereby avoid swelling this pamphlet to what many may think an unnecessary size, after so many volumes have been written on the subject of agriculture.

TILLAGE.

Improvements in tillage may truly be said to be the basis, or real foundation, on which the successful introduction of all the new articles of field culture depend. When the ground is well tilled, it is in the most perfect condition for receiving the fertilizing principles of the atmosphere. Rain, snow, hail, dews, and hoar frost, &c. convey the nutriment of vegetation, which floats in the air, most plentifully into the bosom of the earth, as deep as it has been broken and well pulverized. It is the only effectual means of rooting out weeds, so necessary to the beneficial growth of all crops, and should be repeated till they are in a great measure destroyed. The roots and fibres of weeds are the ligaments and braces which in a great measure knit and bind the clods together, and are indissoluble, till by being exposed to the action of the air, the roots within rot and decay, and the clods, almost by their own gravity, expand into small crumbles, and are reduced to a perfect state of pulverization.

The destroying of weeds, however, is not the only immediate benefit accruing from a due state of tillage; grubs, beetles, worms, and maggots of many different kinds, which abound in most fields, may be greatly diminished, if not extirpated by the well timed use of the plough, and its auxiliary instruments necessary to the reduction of the soil. Nothing so effectually prevents the ravages of the several tribes of subterraneous insects, as the frequent stirring and crumbling the ground. Large patches, of several poles square, in a field of beans, are frequently destroyed by the grub of the cock-chaffer; and many hundreds of cabbage plants by a kind of grey grub of less size. Both these execute their mischief under ground. The first eats the roots of the beans, even when in kid, when they wither, fall, and die; and the latter bites off the stem of the plant just under the surface. Tillage, duly performed, always destroys the whole race.

The improvement the soil acquires by means of frequent and well timed tillage, is gradual and progressive, and the longer it is kept in tillage, if duly performed, the more fertile it becomes. One ploughing in the beginning of winter, and a second early in the spring, will be more effectual in pulverizing the soil than half a dozen at any time of the year. This improvement in tillage is so very clear and certain, that it surprises one much

that it is not universally practised.—*Farmers' Cabinet.*

CULTIVATION OF WHEAT.

The right kind of *spirit* is getting abroad among the farmers at the east of us, if not in other sections of our state, which will be productive of immense advantage to all classes of her citizens, should the coming season prove as propitious as we have reason for anticipating. We allude to the preparations which are making by our farmers for raising large quantities of wheat. A correspondent of the *Maine Farmer* (which, by the way, is an excellent journal of the kind) says that the attention of our yeomanry, is being turned from old pursuits to those of much more importance, and they appear to be determined to prove the oft-asked question, 'can we raise our own bread-stuff?' in the affirmative. A large number of farmers, he says, in North Yarmouth and there about, are turning their attention to this important branch of agriculture, and new improvements and new experiments are about being tried, and the most productive and heaviest seed is inquired for, and much pains taken to obtain it.—One farmer in that town during the past winter, hauled on to his farm about 20 cords of muscle-mud from a distance of four miles, believing it to be very favorable to the growth of wheat when applied to the soil;—and it is estimated that 2,000 loads of sea-muscles, or muscle mud, were scattered throughout North Yarmouth during the same time.

In a Report to the Legislature last winter, by E. Holmes, Esq. Editor of the *Maine Farmer*, it is assumed "that there are 500,000 inhabitants in the state, and that those require 1 lb. bread per day, or 365 a year, which will make 912,500 barrels of flour—a deficit of 871,968!—In the next ten years, the increase was only about 5000 bushels a year—while the increase of consumers was 10,000 a year, giving only half a bushel a year.—From 1830, to the close of 1837, the Report assumes that the increase will be about 5000 bushels, which, allowing 5 bushels to a barrel of flour, the whole amount raised in Maine, is 57,466 barrels of flour—while we have to purchase at the New York Mills 855,034 barrels of flour! or pay out \$5,130,204, for bread stuffs, or go without!"

This fact alone, should arouse the yeomanry of Maine to supply their own wants, in preference to being dependant on other sections of the country for those necessities of life, of which their own soil is capable of producing in abundance.

Portland Adv.

[From the *Yankee Farmer*.]

Mr. Editor—Having seen, in a late number of the *Yankee Farmer*, an article, recommending the *Grain Cleanser*, invented by Markwell Thomas, I wish, through the medium of your paper, for the benefit of the public, to add my testimony in favor of the excellence of that improvement.

At my Flour Mill in Bridgton, I have the first machine, with the improvements, put into operation by Thomas.

I had myself travelled and sent an agent through different states, trying to obtain a machine that would do the work in a thorough manner, but did not succeed until by accident I got information of

this improvement, while the inventor was about to secure the right. The machine is compact, occupying a space only of 6 feet square, it is a very strong and durable article, and with good usage would in all probability last 20 or 30 years. In its operation the work is done to the entire satisfaction of all who have seen it, separating from the wheat every particle of *smut*, *dust*, *seeds*, and *dirt*, without the smallest loss or waste of *grain*. For experiment I took a quantity of smutty wheat, divided it and washed one part, the other I passed through the machine. Both parcels were floured separately, and that produced from the unwashed was decidedly preferable. Many customers have travelled from ten to twenty miles, from the neighborhood of other mills which have the common cleansers, to my mill since I have had this improvement in use, and my custom is daily increasing. Could all the other machines in the country, called grain cleansers, be at my service, and one thousand dollars added, the whole would not tempt me to part with Thomas's improvement.

JOSEPH WALKER.

Portland, May 24, 1837.

Farmers look here—A sensible writer in the Bangor Mechanic and Farmer, in compiling and examining the subject of the culture of Wheat, says, that "wheat countries by continued cultivation becomes almost incapable of yielding wheat. It has been found that every soil is defective unless there is a mixture of three kinds of earth, to wit: clay, sand and lime; and that lime in some of its combinations exists in wheat both in the kernel and straw. In some soils fertile in other respects, lime may have no existence, or found in minute portions and be soon exhausted. If lime be a necessary constituent of wheat, and is not in the soil where we attempt to raise it, it must be supplied by art, or wheat will not grow—or if native lime exists in the soil in very small quantities, the land may bear wheat until the lime is exhausted, and then become incapable of producing that plant until a fresh supply of lime, marl, or pulverized bones, or some other calcareous substance is supplied." With a full knowledge of all those circumstances, it can be easily foreseen when an otherwise tolerably rich soil becomes worn out, and at last incapable of producing more than half a crop of wheat. It is a subject we hope the farmers will take under deep consideration.—*Lancaster Express*.

Horticultural Exhibition.—We understand that the President of the United States, accompanied by the Secretary of State, the Secretary of War, and the Secretary of the Navy, paid a visit to the Horticultural Exhibition on Wednesday afternoon. After candlelight, the same evening, the assembly room was crowded, until 10 o'clock, with a very numerous and brilliant company of ladies and gentlemen, who appeared to view the scene with sincere delight. In every part of the splendid saloon we noticed flowers of extraordinary beauty, which challenged the admiration of the passing spectator. We think the floral display was superior to any thing of the kind presented to our view at any former annual exhibition. The fruits (except strawberries) and vegetables (owing perhaps to the continued cold

weather during the spring months) appeared to us not quite so large and remarkable as on former similar occasions. There were, however, some remarkably fine specimens of Cabbage, Cucumbers, Cauliflowers, Beets, Potatoes, Onions, and Radishes, which reflect great credit on the practical horticulturists of the district, and strongly illustrate the practical value of the Columbian Horticultural Society. We shall hereafter present a more extended and particular notice of the prominent specimens.—*Nat. Intel.*

TO CURE THE SCAB.

Sir Jos. Bangs gave the following prescription to the Society for the encouragement of arts: take 1 lb. of quicksilver, $\frac{1}{2}$ lb. Venice of turpentine, and 4 lbs. hog's lard; rub them in a mortar till they are well incorporated. Then begin at the head of the sheep, proceed from between the ears along the back, to the end of the tail, the wool is to be divided in a furrow till the skin can be couched, and as the furrow is made, the finger slightly dipped in the ointment, is to draw along the bottom of it, where it will leave a blue stain on the skin and adjoining wool. From this, make similar furrows down the shoulders and thighs to the legs, and if the animal is much infected, two should be drawn along each side and the ointment applied in all.

PENNY ROYAL.—Farmers might easily save the flesh of horses and cows, and confer great kindness on their animals, in preventing the usual annoyance of flies by simply washing the parts with the extract of penny-royal. Flies will not alight a moment on the spot to which this has been applied. Every man who is compassionate to his beast, ought to know this simple remedy, and every livery stable and country inn ought to have a supply on hand for travellers.—*Yankee Farmer*.

The *Weather* thus far this spring has been very unfavorable to vegetation. The supply of rain has been superabundant during the last fortnight, and many of the fields which were planted before that time must be replanted. The Sun has shown but a little for ten days, and the few straggling beams which have reached the earth, possessed but little more vivifying power than *moon-beams*. Fruit trees have blossomed full, and the prospects of an abundant supply, especially of apples and cherries, can hardly now be blighted. The foliage of the forest trees is dense and beautiful this spring, and the warm Sun, which began to shed its influence upon this cold, wet, soggy planet last sabbath, will no doubt, help to extricate us from the surrounding mud and water. The submerged Meadows have at last appeared, and many of them are now to be ploughed anew and replanted. If the early frosts do not destroy what these late spring freshets have not blighted, they may consider themselves lucky fellows. We wish them a safe deliverance from floods as well as famine.

Northampton Courier.

To destroy Ticks on Lambs.—Boil tobacco in a large kettle, then put some of the liquor in a tub, adding water to it, and after wetting a Lamb, let a boy hold him, standing on his feet in the tub; then squeeze out all the liquor you can. A man

and boy can wash 30, after the liquor is prepared, in two hours.

[A decoction of Penny-royal will answer equally well.—*Editor Farmer and Gardener*.]

Ewes and Lambs.—That valuable farming paper, the Genesee Farmer, remarks that farmers sometimes experience a difficulty in making ewes own their lambs; and oftener perhaps when cases of twin lambs occur, than at other times.—When sheep are as valuable as at present, those who desire to rear all their lambs may find a benefit in sprinkling a little fine salt over the disowned lamb. This will usually attract the mother, and when once the operation of licking has been performed, there is usually but little danger of desertion.

WORMS ON FRUIT TREES.

We find the following statement in the *Lansingburgh Gazette*:

Mr. Stephen Beach, who resides in Ferrisburg, Addison co., Vt., tried the following experiment with complete success: He took a slip of Birch bark about the width of 3 fingers, this he put around the trunk of the tree, 2 or 3 feet from the ground, and fastened the ends together, by means of a small nail driven into the tree. This bark he besmeared with the skimmings of a pot where salt pork, &c. had been boiled. The worms as it is well known spin down from the trees every night, and when they attempt to ascend the tree, they are arrested, by the bark, or rather the grease on it. They approach this and can pass no further. They gather in large quantities below this strip of bark and remain for a season and then disperse; some who attempt to cross the bark, would be found stretched out at full length and dead. It seems probable the grease and salt together destroys them. By this simple contrivance this gentleman succeeded to rid his orchard of every worm in a very short time. He informed me that one of his neighbours applied grease, or oil, on the tree itself; this he said prevented the worms from ascending, but it well nigh destroyed the trees. It is believed that when birch bark cannot be obtained, that pasteboard would answer the same purpose.

BEET CULTURE.

Enquiry is frequently made by our farmers, whether Beets will answer for feeding Cattle and Horses, and be as profitable for that purpose as other root crops? For the information of those who contemplate sowing the Beet, aside from the manufacture into sugar, it is stated that "Beets furnish from a given surface of ground a greater quantity of nutriment for horses and cattle than any other kind of foliage, and where its cultivation is understood, it has the preference over all other Roots. It succeeds in almost all soils, is but little affected by the vicissitudes of the seasons, and prepares the ground for any succeeding crop." The leaves furnish a good feed for cows, sheep, hogs, and fowls, as for sugar. For cattle, the Beets should be gathered and housed in dry weather. Beets given to cows cause them to give milk an excellent taste and quantity. Cattle eat them with an avidity and are never tired of them.

Northampton Courier.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	8 00	8 50
CORN, yellow.....	bushel	92	94
White,.....	"	88	90
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	10	13½
Louisiana 20a21—Alabama	"	—	—
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR&MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's.....	"	—	—
SuperHow. st. in good de'd	"	8 75	9 00
" " wagon price,	"	—	—
City Mills, super.....	"	7 50	—
" extra.....	"	7 75	8 00
Susquehanna,.....	"	9 00	—
Rye,.....	"	6 00	—
Kiln-dried Meal, in hhd.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,.....	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	—	3 00
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	12 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 00	6 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	48
PEARS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	2 85	—
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"	—	none
TOBACCO, crop, common,.....	100 lbs	2 50	3 00
" brown and red,.....	"	3 50	5 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf, ..	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	—	—
WHEAT, white,.....	bushel.	1 55	1 58
Red, best foreign,.....	"	1 40	1 55
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls.....	gallon.	36	37
" in hhd.....	"	35	do
" wagon price, ..	"	—	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	—
To Wheeling, ..	"	1 50	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

REMARK—The prices are but nominal, as there are but few transactions.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	11	12
Shoulders,..... do.....	"	11	11½
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	8½	8½
BUTTER, printed, in lbs. & half lbs.	"	25	37½
Roll,.....	"	25	31½
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	7 00
Cows, new milch,.....	"	26 00	40 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87½	—
CHOP RYE,.....	"	1 75	1 87½
Eggs,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,.....	"	7 00	—
Herrings, salted, No. 1,.....	"	2 87	—
Mackerel, No. 1, ————No. 2	"	8 00	9 00
No. 3,.....	"	—	4 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....par	VIRGINIA.	
Branch at Baltimore,.....do	Farmers Bank of Virgin. 2	
Other Branches,.....do	Bank of Virginia,..... do	
MARYLAND.	Branch at Fredericksburg, do	
Banks in Baltimore,.....par	Petersburg,.....do	
Hagerstown,.....½a	Norfolk,.....do	
Federick,.....do	Winchester,.....do	
Westminster,.....do	Lynchburg,.....2½	
Farmers' Bank of Mary'd, do	Danville,.....do	
Do. payable at Easton,.... 1	Bank of the Valley,.... 2	
Salisbury,.... 2 per ct. dis.	Branch at Romney,.... 2½	
Cumberland,.....3	Do. Charlestown,.... 2	
Millington,.....do	Do. Leesburg,.... 2	
DISTRICT.	Wheeling Banks,.... 4	
Washington, } Banks, ½p.c.	Ohio Banks, generally 6a7	
Georgetown, } Banks, ½p.c.	New Jersey Banks gen. 5	
Alexandria, }	New York City,..... 1	
PENNSYLVANIA.	New York State,.... 3a4	
Philadelphia,.....½a	Massachusetts,.....3a3½	
Chambersburg,.....1	Connecticut,.....3a3½	
Gettysburg,.....do	New Hampshire,.... 3a3½	
Pittsburg,.....3½	Maine,.....3a3½	
York,.....1	Rhode Island,.... 3a3½	
Other Pennsylvania Bks. 4	North Carolina,.... 6	
Delaware [under \$5].... 6	South Carolina,.... 8a10	
Do. [over 5].....2	Georgia,.....do	
Michigan Banks,.....10	New Orleans,.....15	
Canadian do.....10		

VALUABLE CATTLE FOR SALE.

THE undersigned is authorized to sell the following valuable Cattle, the whole the get of YOUNG MALCOLM. Young Malcolm is represented to be the handsomest short horn in Maryland; he was got by TECUMSEH; he by MALCOLM, out of ZENOBIA, both purchased of Col. JOHN HARE POWEL, by the late CHARLES CARROLL OF CARROLLTON.

2 full blood Durham heifers, 2 years old, in calf by Young Malcolm
1 do do 1 year old
1 bull Calf, half Durham, half Devon, a perfect beauty, 13 months old
1 full blood Durham Heifer, 2 years old
1 7-8 Durham bull Calf, 3 months old
1 Bull Calf, half Durham, half DUTCH, or Holstein, 3 months old.
1 full blood Durham bull Calf, 6 weeks old
1 3-4 Durham bull Calf, 2 weeks old.

Any gentleman wishing to procure a stock of this celebrated breed of animals, or of adding to his present herd, will have an excellent chance of doing so, by applying to

EDWARD P. ROBERTS,
Baltimore, Md.

P. S. All letters of inquiry must be POST PAID. j 13

Printed by Sands & Neilson, N. E. corner of Charles and Market streets,

HAZELWOOD FEMALE ACADEMY,

FIVE MILES N. W. OF BALTIMORE.

This institution, situated a short distance from the village of Franklin, in a highly eligible and healthy location, will be re-opened for the reception of pupils, under the care and superintendence of Mr. and Mrs. THOMPSON, on Monday, the 12th of June.

In addition to the efficient aid already procured, in the various departments of Literature, Mr. and Mrs. T. can promise the patrons of the Institution, a regular series of LECTURES from the following eminent gentlemen, viz. On Moral Philosophy, Francis Waters, D. D. Natural Philosophy, J. H. Miller, M. D. } Professors in Chemistry & Botany, Ed. Foreman, M. D. } Washington Medical College.

Exact Sciences, Richard Cotter, A. M. Professor of Mathematics in Boisseau Academy. Polite Literature, S. W. Roszel, M. D., Principal of Boisseau Academy.

BOARD OF VISITORS.

Rev. Dr. Thomas E. Bond David Stewart, esq Frank-
Rev. J. G. Morris, lin st.
Charles F. Mayer, esq. James Barroll, esq.
J. P. Kennedy, esq. Jonathan Meredith, esq.
John Prentiss, President of Nathaniel Williams, esq.
Baltimore College

TERMS.

The Scholastic year will be divided into two sessions of five months each.

Board and tuition in the English and Latin languages, Mathematics, Moral and Natural Philosophy, Chemistry, together with the advantages of all the Lectures, (per session) \$100
French, Spanish and Italian, (each) 10
Music, Vocal and Instrumental, 30
Drawing (with materials), 12
Washing and Bedding (if required) 15
Stationary at store prices.

The tuition fee will be due, and payable to the Institution, within the first four weeks of each session.

Any further information in reference to the above Institution, will be cheerfully given by Dr. ROSZEL, Boisseau Academy, St. Paul's street, or address Mr. and Mrs. Thompson, Hazelwood Academy, near Baltimore. June 10—13 4t

HARVEST TOOLS, &c.

Grain and Grass SCYTHES of most approved stamps, GRASS SNEATHES, with Scythes and Hangings complete; GRAIN CRADLES, 4 to 8 fingers, with warranted scythes attached; Dutch and American SICKLES; SCYTHE STONES and STRICKLES, for whetting Scythes, BRAMBLE SCYTHES and HOOKS, for cutting briars and bushes; Mowers' and Cradlers' Hammers, Hay and Grain RAKES, Steel spring HAY FORKS.

And constantly kept for sale, PLOUGHS of various patterns, Cultivators for corn and tobacco, Wheat Fans, common and patent CORN SHELLERS, Cylindrical and common STRAW CUTTERS, Drills Machines for planting corn, beans, turnip seeds, &c.

Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO. June 6 4t

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100
Do. exclusive of the wheels, shafts and axle, 60
For applying the machinery to a common cart 45
For the machinery alone 40
Including the patent fee in each case. fe 28 3t

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THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 8.

BALTIMORE, MD. JUNE 20, 1837.

Vol. IV.

THIS publication is the successor of the late
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American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 20, 1837.

We publish the subjoined note to us with no measured feelings of pride and pleasure—pride, that the author is a Marylander, and the generous sentiment which it breathes reminds us of those good old palmy days, when to be known as a “Maryland gentleman,” was a passport to every circle where virtue abided, or chivalry had its advocates—and pleasure, that the laudable effort to benefit the agricultural interest of his adopted country, by Mr. Ronaldson, is duly appreciated.

We regret that we are unable to answer the query of our esteemed correspondent, but shall take pleasure in forwarding one of our papers containing his inquiry to Mr. Ronaldson, in the hope that it may elicit from that gentleman such an answer as will prove satisfactory. With Mr. Ronaldson, we have no personal acquaintance, though for many years we have known and esteemed his character, and we must here be permitted to remark, that high as we have always valued that character, his late attempt to promote the interests of American husbandry, has greatly elevated it in our estimation—there was so much disinterestedness—so much of that kind of feeling which we hallow about it, that our respect was instinctively turned into veneration. Let us review the ground of his action, and calmly reflect upon the nature of the service he desired to perform. Mr. Ronaldson is a gentleman of ample fortune, retired from business, disconnected altogether, personally, with agricultural pursuits—thus situated, he calmly looks around him, and beholds one of the great staples of the country, from some cause inscrutable to human ken, from being a heavy article of export, dwindling down in its product so low, that it was incompetent to our domestic supply—unmoved by interest—uninfluenced by prospects of gain, after weighing the causes of this sudden deterioration, in his mind, he conceives the philosophic thought that a change of seed

might prove a curative of the evil, and purely to serve the tillers of the earth, in the land of his adoption, at his own risk and cost, he orders a supply not only of the seed of this staple commodity, but of various others, from Europe, and with a view of encouraging those interested to carry out the conceptions of his own generous mind, he offers them at cost and charges. The vessel on board of which they were shipped was unfortunately lost; but that disaster does not in the least detract from the meritorious nature of the noble deed; and, therefore, we hail with the more pleasure the kindred feelings which have prompted our correspondent—they are thrice honorable—first, because they manifest a proper appreciation of the act itself; secondly, because they are evincive of those grateful impulses which sanctify human motives; and thirdly, because they do honor to one whose intentioned good is beyond all price.

Messrs. Editors—Does our friend, Mr. Ronaldson, of Philadelphia, sustain any loss himself, in consequence of the loss of the brig on board of which the seed wheat ordered for a number of farmers of this country had been shipped? If so, I desire to come in for my full share of it, in proportion to the quantity I had ordered, with as sincere thanks to him as if I had received it.

M. C. JONES.

St. Mary's co. Md.

Before this day's sheet shall have reached them, most of our readers will have been apprised, through other channels, of the overwhelming disaster which on Wednesday night last visited our city, and spread ruin and desolation in its train. It is not our purpose to enter into a detail of the particulars, for our space would forbid it, if the fact to which we have alluded, had not rendered it unnecessary. It must, therefore, suffice to state, that nearly all the streets bordering on Jones' Falls, were by the rain of Wednesday night, laid under water, and that property to the amount of, perhaps, half a million of dollars, destroyed. Added to this, many human lives were lost. We have in our life looked upon many appalling scenes, and witnessed numerous objects of distress, but the present exceeds every thing of the kind of which our mind had conceived any idea. Fires bring with them their sum of misery, and that of New York a few winters ago, was prolific of e-

vil; but there the loss chiefly fell upon wealthy individuals or chartered companies, and thus was the degree of suffering either mitigated in the ability of the parties to bear it, or its force blunted by the number of individuals who shared in the ruin. But such is not the case in the present instance. The great majority of the sufferers by our calamity, are either persons in humble circumstances, or those whom their losses will reduce to want. Among them, to be sure, there are many wealthy men, who, though thousands and tens of thousands have been swept from them by the impetuous and resistless current, have still the means left to make them affluent, and place them beyond the pinchings of want. Not so is the case with their less opulent neighbors. That part of our city which has been laid in waste, is mainly inhabited by small business men, whose chief, if not entire wealth consisted in their respective stocks of goods. To such, it will be readily conceived, the present deprivation of property will fall with a weight that will strike at their every comfort. In passing over the theatre of destruction, our heart became sickened; at every step we took, we beheld objects appealing to our sympathies—those who but the day before were contented and happy under the belief that they and theirs were secure from the ills of fortune, in a single night were cast adrift on the world to seek out new pursuits and other means of living for themselves and families. But it is not our purpose to repine; it has pleased the Great Author of our being thus to manifest his pleasure, and with the resignation that becomes us we yield obedience to his will.

Ruta Baga.—This excellent root should not be delayed to be sown longer than you can get the ground in order. A quarter of an acre well put in, will with the addition of hay, keep two cows well to their milk through the winter, and will you be so stinting of your labor as to deny to your lady the pleasure of laudably boasting of the products of her dairy.

Buckwheat.—Let no farmer, who has ground to spare, neglect to put in a few acres of this excellent grain; while its flour commands a ready sale and good price, its straw is among the best hay that he can give to his milch cows.

We have upon repeated occasions urged the culture of *Millet* as *hay*, upon the consideration of our readers, and we are happy to know, that those recommendations have had their effect in numerous instances. Encouraged by our success, heretofore, we take the liberty of again respectfully urging upon such of our subscribers as may apprehend short crops of hay, to devote a few acres to its culture. Its rapid growth, great yield, and the ease with which it may be cured, are qualities which certainly commend it to favor. In six weeks from the time of sowing it last year, we committed it to the hands of the mowers, and never saw a larger or more nutritious body of hay garnered from the same quantity of land in our life.

On good ground, ordinarily manured, we have no hesitation in saying that it will yield from 3 to 4 tons to the acre; on good ground without manure, it will bring at least 2 tons to the acre, and last, though not least, it is so easily cured; half a day's exposure in the *swath* to the sun being all that is required; after which it should be cured in cocks; turning these once a day for two or three days, when it may safely be put away; but if it be desirable to make it acceptable to the stock, it should be salted when stowed away, in the proportion of one peck of salt to the ton. By using salt in this way, it is not necessary to give that condiment to the stock fed on it.

We have heard it urged against the culture of the *Millet*, that it required *rich ground*; now we would ask, can any reasonable man expect large product of any thing unless it be placed on soil competent to produce it? If there be such, all we have to say is, that they are unreasonable beings, and require more than common sense would justify them in asking. But we maintain, that *millet* does not require such extraordinary strength of soil. We raised ten tons last year off of $2\frac{3}{4}$ acres of ground, which was not originally *rich*. It is what farmers call *kind* land—a deep sandy loam. It had, to be sure, been *rested*, as the phrase has it, for several years, and depastured by cows. But we did not put on it a single ounce of manure of any kind: we ploughed it twice, harrowed it an equal number of times and then sowed it with *millet*, at the rate of half a bushel to the acre. We directed a bushel to be sown, but one half the seed we gave out were not sown; had they been, we have no doubt a larger yield and better hay would have been the result.

Again,—we have often heard the objection made to *Millet* that it made a *coarse* hay! Now this is an evil, if it be one, that may very readily be remedied. *Millet* will only grow rank where

extra space and aliment are present to push forward its growth. If an *extra* quantity of seed be cast on the earth, the consequence is, that a *sizable* grass will grow thereon, which, while it adds to *quality*, in its superior fineness, increase the bulk and weight.

We have heard it stated too, that it is a great *exhauster* of land, and so far as theory and philosophy may go, it is very natural to suppose that like all other rapid growers, it is an *exhauster*, for it is consonant to reason to presume, that any vegetable which comes to maturity so early must necessarily draw upon the soil for its support with no very stinting hand; but then, we believe that, from the rapidity with which it covers and shades the soil from the influence of the sun, that it is not so exhausting as many other crops. In corroboration of this opinion, we would offer a fact, afforded by the ground itself. The lot on which we grew our *millet* last summer, we put in Rye the past winter, without giving to it a grain of manure, and have now standing on it as fine a crop as we could desire, without subjecting ourself to the imputation of being avaricious. Now, if the *millet* was really as exhausting as represented, could the rye have so successfully grown on it under the circumstances that it has? We think not.

If we were asked, what quantity of *millet* seed we would sow to the acre, we would reply, that, never less than three pecks or a bushel where we wanted the product for *hay*, and half a bushel, if for seed.

Horses and stock of all kinds eat it with avidity, and it may be set down as a proposition perfectly defensible, that 2 tons of *good* *millet* hay, contains as much nutritive matter as three of *timothy*.

There is another reason of no mean importance why *millet* should be cultivated. It is beyond all question the best crop that can be put in to prepare ground for *timothy*; its rapid growth, entirely suppressing that of weeds of every description, and leaving the soil in that wholesome condition when nothing is required, but to harrow in the seed, to insure a good and well set crop of *timothy*, without any additional trouble or expense of after ploughing.

Turnip Culture—An opinion prevails among many judicious thinking farmers, that if turnips are got in from the 20th of August to the 1st of September, that there will be time enough left to mature the crop. In the present changed state of our seasons, we believe that either of these periods, or any time between them is entirely too

late, if it be desirable to grow a remunerating crop. To be sure, if the object of the culturist simply be to raise turnips for his own table use, it may be well to delay sowing thus late; for, of a certainty, the turnips so raised will be sweeter; but wherever *profit* forms the object of the crop, the seed ought to be sown from the 15th to the 25th of July, by which, besides getting a greatly increased product, time will be allowed to resow if failures proceeding sometimes from defective seed, and at others, from destruction by the turnip fly or grass-hoppers should occur.

THE CROPS IN MISSOURI AND ILLINOIS.

Our excellent old friend and subscriber, Mr. John Smith, of Dardenne, Missouri, has placed us under another obligation, in furnishing us with the subjoined account of the prospects of the crops in his state and vicinity. As he richly merits them, we render him our thanks for his attention to our request.

DARDENNE, Mo. May 29th, 1837.

Mr. Roberts—Accompanying the first number of the current volume of the *Farmer and Gardener*, I received a gentle prompting to perform a duty to the public which I have had in contemplation for some time past, but which I might have delayed for some time yet to come, or neglected altogether, but for the admonition you sent me.

Indeed, the communication you request will afford so little that will be gratifying, either to myself, to you, or to your readers, that it is rather an unpleasant task than otherwise to furnish the information you request; but to the matter in hand.

There was less wheat sown in this region of country last fall than usual, and much less than was intended to be sown, on account of the unfavorable character of the weather during the proper time for preparing the ground and putting in that crop last season, it being excessively wet from the 1st of August until the setting in of the winter; consequently most of the wheat and rye that was sown here, was put in late, and in bad order, and then the winter was of the very worst supposable character for the wheat, or any other plant exposed to its vicissitudes, it being remarkable for sudden and frequent violent changes, the ground all the time being fully saturated with water: the consequence has been, that the crop of winter grain has been more completely winter-killed, than I ever saw it, except once, perhaps, in 1826. There are, however, a few fields, and but a few, within my knowledge, that look entirely well, and will make a good yield; these were sown early (in August) and before the ground got in bad order. A considerable portion of the crop was sown so late that it only came up partially, and the winter was of such a character that all the grain that did not actually come up rotted during the winter, and did not, of course, vegetate at all; and then the weather for the last six weeks past has been as unfavorable as it could well be for grain that was partial

ly hove out by the winter frosts; it has been dry, windy, and cold, and many plants have perished that would have survived and produced grains under favorable circumstances as to weather. Upon the whole, the prospect for crops of wheat and rye is worse than it has been for ten years past; there will not, I think, throughout the circle of my acquaintance, be more produced than twice or thrice the quantity of seed sown, should the season prove favorable in filling time. The season so far has been unfavorable to the production of all the grain crops we cultivate. The winter and early part of spring were excessively wet, and consequently, our ground much run together and very stiff, was too wet to plough until the middle of April; it then set in dry and very windy, and continued so cold that our oats have not come up well, nor grown much. It has been too cold and dry to bring up corn also, so that much of the seed of that grain has rotted, or been destroyed in the hill by insects. A great portion of what has come up, has been destroyed by birds, squirrels, &c. the coldness of the season keeping the seed grain eatable a much longer time than usual. I understand, however, that the crop of wheat is entirely promising in the western part of this state, that is, high up the Missouri, as also in the southwest, bordering on Arkansas, and also in that part of Illinois lying between the Mississippi and Illinois rivers; the snow having been on the ground there from December until March, afforded protection to the wheat, and the soil of all these regions where the wheat stood the winter well being more porous and of a looser texture than in this region, where it is laid on a foundation of clay, so close and compact as to be perfectly impervious to water generally, at the depth of two or three feet below the surface.

Although the last winter was as unfavorable as one as could well be supposed on stock, and the supply of forage unusually scarce, yet there has not been much loss of stock within my knowledge, and particularly the hog stock, which I anticipated would perish extensively, has come through the winter in fair condition. We have had to feed stock nearly a month longer this spring than usual, and the grazing is as yet only tolerable, not abundant. We had a frost here on the 17th, which did great damage to garden vegetables in low or valley situations, but our elevated ridges escaped entirely.

Yours, respectfully, JOHN SMITH.

P. S. I shall send you the name of a new subscriber so soon as the post office goes into operation, which is established in his vicinity, when you may also expect a remittance from me.

J. S.

GEOLOGICAL—The importance of a geological survey of the state was never questioned by us, and we unceasingly recommended the subject to the consideration of the legislature. At the last session, the legislature made an appropriation for a survey, and authorised the governor to appoint a geologist. The governor, in accordance with the authority conferred, appointed Mr. Cotting the geologist of the state, who for some months past, has been engaged in the discharge of his duties. That the result of the survey will be of great benefit to the state, we have no doubt, as discoveries will be made, and information obtained, of great value to the citizens, and to land own-

ers in particular. We are confirmed in this opinion by two specimens deposited in our office by Gen. David Taylor, of this county, one of iron ore, and the other of mineral coal, which the general brought with him from Floyd county, in the Cherokee country. He informed us that coal can be obtained in immense quantity, and that the mines of iron ore are inexhaustible in that section of the state. The coal, by experiment, burns remarkably well, and produces instantaneous blaze. Cannot similar discoveries be made in other sections of the state? And will they not prove as rich and as profitable as the gold mines? To render those iron and coal mines available and profitable, we have only to encourage the construction of good roads—rail roads—and iron, coal, marble of various colors and of great beauty, can be transported to every part of the state, and to the seaboard for exportation.—*Augusta (Geo.) Constitutional.*

FRUITS OF THE SEASON.—It is refreshing to pass through our market, and see the rich profusion of fruits that are offered to the eye. Cherries, raspberries white and black, currants, gooseberries, apples, besides a great variety of vegetables of all kinds, are to be seen on every side. Of course, there are more solid things in great abundance, but the fruit is especially attractive. If our northern brethren could get a peep at things here, we would have the finest paragraphs imaginable in the matter. [By the way, we are more convinced every year of the vast advantages to be derived from the establishment of orchard and dairy farms in the vicinity of Norfolk. We know that half a dozen enterprising men, well skilled in practical gardening, could obtain lands in the neighborhood, and would reap in a few years, on the smallest farm, a handsome competency. The great misfortune of our farmers is to be found in their coveting hundreds of acres when tens would be more profitable to them, and more advantageous to the community. We hope to see the neat and snug homestead, with a few acres in high cultivation, superceding our half cultivated fields of boundless extent, but of small profit to those who own them. The orchards and dairies of the north annually drain the south of thousands of dollars, and will continue to do so, until we adopt that policy, which we find to our cost to be so profitable to those who pursue it.—*Norfolk Beacon.*]

HORTICULTURE.—Few persons in this country are aware of the degree of excellence, both in regard to size and goodness, to which the various fruits are brought, by artificial means, in England, where wealth and skill combine to obtain a degree of perfection, even for tropical fruits, unknown in their native climes. The annexed article from London's Horticultural Magazine for September, will give an idea of the size which has been given to the article of grapes by artificial culture:

The grapery at Kinnel Park.—A writer in the *Caernarvon and Denbigh Herald* of June 16, who "had the gratification of visiting Kinnel, the princely mansion of Lord Dinorben, (a nobleman whose name," the writer truly observes, "derives a far more splendid lustre from his patriotism and generosity than from his coronet,") was much delighted with every thing; but, when he

entered the hot-houses, his "surprise and admiration were raised to the highest pitch." He adds, "I believe I may with safety assert that the abundance of grapes, in their different stages, is not, under an equal space of glass to be exceeded in any part of the kingdom; and I shall give the dimensions of a bunch which I selected for examination, at random, without searching for the largest. It was of the second succession crop, and had not yet reached its maturity. It measured across the shoulders 2 ft. 5 in.; it was in length 2 ft. 6 in.; the diameter of the leaf was 18 in.; and, when the bunch is full grown, it will probably measure each way about 4 inches more." We shall be greatly obliged to our correspondent Mr. Forrest, the very skilful gardener at Kinnel Park, if, after the bunch is ripe and gathered, he will let us know the weight and number of berries it contains.—*Editor.*

ANNUAL EXHIBITION OF THE COLUMBIAN HORTICULTURAL SOCIETY.

In the brief notices which we published pending this very interesting and delightful display of the floral beauties of the Metropolis and its vicinity, which were so tastefully and elegantly arranged by the ladies in Carusi's spacious and well adapted Saloon, we did not attempt to particularize the numerous beauties which presented themselves on every side, as we promenaded through the Assembly Room. We propose, in the following article, to notice with some particularity the flowers, fruits, and vegetables, which challenged the admiration of the company, and reflected so much credit on their respective cultivators. In doing so, however, we would beg to observe that it is possible we may omit several worthy specimens of horticultural excellence, which may have attracted the attention of more close and scientific observers. Should this be the case, we hope that such omission will not be imputed to any intention on our part to slight or overlook the specimens of any lady or gentleman who kindly contributed to the general beauties of the scene.—We feel assured that every person who sent a specimen to the late Exhibition did so with the kindest and best intentions, and was well entitled to the thanks of the Society and of the numerous company in attendance. We proceed to notice, first,

THE FLOWERS.—Among these we observed very large and splendid contributions from the green houses and gardens of Messrs. Peirce, Douglass, Buist, Dick, Gunnell, Georgetown College, Mrs. Seaton, Mr. Varden, Mr. Boyle, Mrs. J. F. Callan, Mrs. Lenthall, Miss F. Clark, Mrs. Parker, Mr. B. Williams, Miss Kurtz, Mrs. Ritter, Mrs. Bomford, Miss Emack, Mr. Rich, Mr. James M. Gilles, Mr. Rothwell, and Messrs. John and Samuel Feast, of Baltimore. The collection of flowers was on the most extensive scale, and, consequently, forbids a minuter description. We should, however, be doing injustice to our own strong feeling of admiration, as well as to those of the assembled company, did we not specify the *Cactus Speciosissimus* of Mr. John Feast—one of the most splendid flowers that ever was exhibited in the District; for the sight of which, if we could not otherwise have enjoyed it, we would have cheerfully walked ten miles in the month of June. Several other specimens of the *Cactus Speciosa*,

from the collections of Messrs. Peirce, Douglass, and John Feast, were also greatly admired by the company. The *Erethrina* (Coral Tree) of Mr. Buist was little inferior to any other plant in the room. The flowers and plants of several other contributors were remarkably choice and beautiful, and reflected much credit on their taste and skill.

All the visitors seemed to regard the collection of flowers as superior to that of any preceding exhibition.

FRUITS.—Several varieties of the finest Strawberries we ever saw in this country were exhibited by those experienced and successful cultivators, Mr. Wm. Cammack and Mr. Hoppe. The specimens of this delicious fruit from the gardens of Col. Wm. Hickey, Gen. Towson, Mr. Ouseley, (the President's gardener,) and Mr. Barnard, were remarkably fine. Mrs. Seaton sent in a bushel of very fine Strawberries, which, on the second day of the exhibition, were distributed by that lady to the orphan children of the Asylums in Washington and Georgetown. Several specimens of fine Cherries were exhibited from the gardens of Mr. J. A. Smith, Mrs. Seaton, Gen. Towson, and Mr. G. Watterston.

Of greenapples, we noticed favorable specimens from Messrs. J. F. Callan, R. S. Coxe, and G. Watterston; of green apricots, from Messrs. John A. Smith, J. F. Callan, and R. S. Coxe; of extraordinary large gooseberries, from Messrs. Cammack, Ouseley, Hickey, and Redin; of green currants, by Mr. Hickey; of ripe currants, by Mr. J. F. Callan.

A basket of remarkably fine and unusually large lemons was exhibited from the green-house of Dr. McWilliams. Also, fine specimens of the same fruit, by Dr. Riley and Mr. Peirce.

VEGETABLES.—Although the season was very unfavorable, the show of vegetables was such as to gratify the taste and feelings of the practical horticulturist. Col. Hickey's fine Early York cabbage and large onions were very much noticed. Mr. Isaac Clark exhibited some fine heads of Early York cabbage from the Penitentiary garden. Mr. Marbury, of Georgetown, had the finest specimen of onions on the table. Col. Hickey also exhibited fine specimens of blood beet, head lettuce, and tomatoes, nearly ripe. Mr. Cammack showed several varieties of remarkably fine cucumbers, Mercer potatoes, cabbage, radishes, &c. Mr. Hoppe's potatoes, two sorts of rhubarb or pie plant, mushrooms, cabbages, lettuce, &c. were all of the finest the season could produce. Mr. John Pearce's beets and carrots, Mr. Naylor's onions, Col. Bomford's cabbage and lettuce, and various other esculents were much admired.

Among the curiosities of the exhibition, two large stalks of prolific (Baden) Corn, presented by Mr. H. McCormick and Mr. Naylor, attracted very general observation.

Although the weather on the second day of the exhibition prevented a great number of ladies and gentlemen from visiting the Saloon, yet, as in the afternoon and evening the rain had discontinued, the company considerably increased. It was one of the most interesting spectacles of the exhibition to witness the children of the Orphan Asylum in Georgetown, conducted by their respective directresses into the Saloon, enjoying the

beauties of the scene, and afterwards a rich repast of strawberries prepared for them by the kindness of Mrs. Seaton.

We cannot close this article without expressing our thanks to the ladies and gentlemen who took so much pains, and devoted so much of their time to the objects of this Horticultural Exhibition. In the arrangement of the plants and shrubs; in the care that was bestowed to prevent accidents, (which are almost unavoidable in some instances;) in the preparation of the floral pyramids, which was exclusively the work of female hands, much valuable time was necessarily consumed, accompanied by untiring vigilance. We hope, however, that as, through the able and praiseworthy management of the officers of this Society, it has continued to exert its salutary influences in the District, and to reach the fourth year of its existence, it may long continue to remain what it now is—a benefit and ornament to the metropolis.

Nat. Intelligencer.

[From the Farmer's Cabinet.]

SUGAR BEETS.

The following letter from an intelligent and practical farmer, addressed to Benj. M. Hollinshead, Esq. of this city, (Philadelphia,) we most respectfully commend to the attention of our readers.

'In answer to thy inquiries as to the value of the beet root crops, I may state the following facts as the result of my own experience, and from which I come to the conclusion that, for the purpose to which I have applied them, there is no crop better adapted. The first of beets I raised was in 1835, when I planted about the sixth part of an acre in the middle of the sixth month, (June,) and from which I gathered 75 bushels; those I planted in rows about 3 feet apart, and about one foot between each plant;—from this experiment I found, that to raise 450 bushels of the beet-root on an acre of ground, required much less labor than a crop of potatoes. Neither do I consider this an average estimate of what might be produced, for the following reasons: 1st. They should be planted earlier in the season, that in case any of the seed should fail to come up, (as some of mine did,) the vacancies might be filled by transplanting from places where they would be too thick; and in sowing the seed enough should be put in the ground for that purpose.—2. They might be planted much nearer together, say the rows two feet apart, and about 8 inches between each plant in the rows; there would be then sufficient room to give them all the necessary culture. My object in raising this crop was to make an experiment in the way of obtaining sugar, at the suggestion of an individual, who had that object in contemplation for several years; but from our limited knowledge of the process necessary to the accomplishment of that end, were not able to succeed further than in obtaining tolerably good molasses. I discovered, however, that but little was lost in consequence of the failure, because the pumice (that is, the roots after being ground and pressed) proved to be very good for either cattle or sheep. By feeding on this, my cows yielded an additional quantity of milk. If for sheep, there was nothing perhaps much better, in consequence of the root being reduced to such very small pieces. The last year,

1836, I again raised another crop, but under the same disadvantages as the year previous—not getting my seed in the ground sufficiently early to admit of transplanting, and have all the benefits of the season, which was rather an unfavorable one for this as well as most other crops, in consequence of so much cold weather. I had, however, a large quantity of beets, which I have fed away to cattle to good advantage, making use of the tops, in the early part of the fall, as food for cattle. I have fed my cows chiefly with them, and find they give more milk than before, and of a good quality.

I am, respectfully, thy friend,

JOHN JACKSON.

Darby, Del. co., 1st Mo. 1837.

BEETS.—Beets in their several varieties, are biennial, and the best blood colored, are much cultivated for the sake of their roots which are excellent when cooked, and very suitable for pickling after being boiled tender; they also, when sliced, make a beautiful garnish for the dish, and the young plants are an excellent substitute for Spinach.

The Mangel Wurtzel, Scarcity, and Yellow Turnip Beets are cultivated for cattle. Domestic animals eat the leaves and roots with great avidity. They are excellent food for swine, and also for milch cows; and possess the quality of making them give a large quantity of the best flavored milk.

A small bed of the earliest and most esteemed kind of beets, may be planted in good rich early ground towards the end of March, or in the first week of April, which, being well attended to, will produce good roots in June.

Draw drills a foot apart, and from one to two inches deep, drop the seed along the drills, about two inches from each other, and cover them with the earth. When the plants are up strong, thin them to the distance of six or eight inches from each other in the rows. The ground should be afterwards hoed deep around the plants, and kept free from weeds. If the planting of Beet seed for general crops, be delayed until May or June, the roots will be much larger and better than those from the earlier planting, which from being frequently stunted by the various changes of weather, become tough, stringy, and of unhandsome shape. In case of failing crops, Beet seed, planted the first week in July, will sometimes produce large handsome roots for winter use.

The most suitable ground for beets is that which has been well manured for previous crops, and will require no fresh manure, provided it be well pulverised.

It is always best to thin Beets while young. If the tops are used as a vegetable, they should not be left too long for this purpose, or they will greatly injure the roots of those that are to stand. Beds that are to stand through the summer, should be kept clean by repeated hoeings; and the roots intended for winter use should be taken up in October, or early in November, and stowed away as directed in the calendar for those months.

Allowing Beet seed to be planted on the Gardening plan, it will require at the rate of ten pounds for an acre of land, which is two pounds and a half for a rood, and one ounce for every

perch, pole or rod. If cultivated on the field system, one half the quantity of seed will be sufficient, or even less sown regularly. If it be an object with the gardener to save the seed, he may plant two or three seeds in each spot where a plant is required, and thin them as before directed. It may be necessary to add, that one pound of Beet seed will measure about two quarts, and as each capsule contains four or five small seeds, thinning out the surplus plants is indispensable to the production of good roots.—*Gardener's Assistant.*

[From the Farmers' Register.]

DIRECTIONS FOR CULTIVATING WATERMELONS & CANTALEUPES.

Feb. 25th, 1835.

Enclosed I send you memoranda for the management of watermelons and cantaleupes, by a gentleman who, in 43 degrees of north latitude, frequently raises melons weighing from thirty to forty pounds. If the same pains were taken in the south, how fine and large we might grow our melons. Yours,

Holes, 2 feet diameter, 20 inches deep, filled 1 foot with garden rubbish and unrotted manures, beat down hard, and watered, (two or three buckets full,) then filled to the top with rich soil: on this spread an inch of fine compost or well rotted manure, compact, but not hard. Stick the Seeds—(say twenty or thirty to a hill,)—the upper end of the seed to be a little below the surface of the compost; brush over the hill with the hand so as to fill the holes made by the fingers; then cover the hill with an inch of clear sand, often watered. In Alabama, I should think, grass turf, (the grass side down,) would be a good filling for the 12 inches.

Hills, 10 feet apart, 2, 3, and at most 4 plants only to remain in a hill, and standing apart from each other: thinned by the time plants have 6 leaves.

If the season be dry, dig down by the side of the hills nearly as deep as the bottom of the holes, and put in a bucket or two of water—filling the hole after the water is absorbed: as soon as the yellow bug is gone, take away the sand and supply its place with soil. This is all that can be done in the hill.

When the plant has six leaves, take off the centre shoot with the point of a sharp penknife, and when the lateral shoots are six inches long, take off all three: when these begin at the ground secure them down with cross sticks; and as they advance, spade up the ground a foot deep in advance of the vines.

Once in every 3 or 4 feet, put a shovel full of soil at a leaf joint of the vine, (not covering up the leaf,) and press it down gently with the foot on both sides of the leaf; if this is kept moist it will tie the root. The ends of the vines to be kept to the ground by cross sticks.

Let the vines spread from the hills so as to cover the whole ground.

If the side branches of the main vines are inclined head up, and not to keep to the ground, take them off, say a foot from the main vine.

All pruning to be done in the middle of the day when the sun shines.

Let the melon set within 4 or 5 feet from the root; and then only one on a lateral branch, three

to a plant. Let the vine run on as far as it will—keeping it to the ground; permit no melon to grow that is deformed; pull off no male blossoms.

When the melon is nearly to its size, others may be permitted to set on the same vine, and a second crop raised. I should think the vines might be made to grow from 20 to 30 feet long.

Great care should be taken that the vines are not moved or trod upon.

The early but small melons. Let the melon set at the 2d or 3d leaf joint from the root, and take the vine off two joints beyond the melons.

To increase the number of cantaleupes—Take off all the melons that set within two feet of the roots.

These may be planted 6 feet apart, 8 to the hill, and require no particular attention.

Sand on the hills is one of the best preventives against the yellow bug, though not entirely a preventive.

It is useful to plant pumpkin or squash seeds near the hills for the bugs—taking care to pull them up as soon the bugs are gone.

Cantaleupes should not be planted nearer than 20 yards to muskmelons or cucumbers.

To improve your seed, save none but from the very best melons.

Keep a record if you wish to know certainly the result.

SUGAR COMPANY IN ILLINOIS.

At the late session of the legislature of Illinois, a company was incorporated for the purpose of manufacturing sugar from the beet. The capital stock is \$20,000, with liberty to increase it to 200,000, and the works are to be located at Edinburgh in Sangamo county. The following from the Sangamo Journal, published at Springfield, the recently established capital of the state, shows the estimation in which it is held in that region.

"The prominent object, we understand, is the manufacture of Sugar from the Beet; and from all we can gather from the reports made by Companies in France and the United States, who have fully tested its practicability, we are very far from regarding it as a visionary project, as many are disposed to represent—but, on the contrary, believe they will find it a source of profit, and be able in a few years to supply the entire demand for sugar in Illinois.

The labor of one man and horse for 12 months will tend 5 acres—the product of which will amount in the aggregate to at least 100 tons—and manufacture it. The beet will yield about 10 per cent. of sugar, which is 2000 pounds per ton, making 20,000 pounds of sugar from five acres of ground; which at the rate of five cents per pound, would amount to \$1000!

It is estimated that the value of the beet after the sugar is extracted, for fattening cattle, is fully equal to the cost of its manufacture.

The Company, it seems, contemplate the cultivation of the mulberry tree, for the manufacture of silk—and the raising of the Sunflower seed, from which a large quantity of oil can be obtained, almost, if not quite equal in quality to the best olive oil. One bushel of seed yields about two gallons of oil, and is as easily extracted as the oil

from flax seed. Our soil is admirably adapted to both these objects.

GEORGIA SILK.—We have been presented with a specimen of silk from the plantation of a lady in Georgia, which is believed to be the first of the product in that state. It was reeled and wove by the lady herself, and is of very handsome texture, though, as might be expected, not equal to similar fabrics at the north, where greater attention has been given to the subject and more perfect machinery is used. The mulberry leaves were picked and the worms fed by negroes, who manifested much interest in the employment. The successful introduction of silk into the slaveholding States, by which the light employment would be furnished to female slaves and their children, would be a benefaction to that portion of the population worthy of all commendation. If the Georgians consult their true interest they will not fail to hold up this example for general imitation.—*Worcester Palladium.*

SILK CULTURE.—We yesterday received from our St. Augustine Correspondent, a skein of beautiful Silk—the growth and manufacture of that place. It was produced from the leaves of the Chinese Mulberry, and seems to us remarkable, both for strength and for the delicacy of the fibre.—It would appear from the facts stated by our correspondent, that the tree flourishes admirably, and that a second brood of the worm is produced during the season of the leaf, and consequently a double quantity of silk made with little additional expence; it would appear from these facts, that the culture of Silk must soon become one of the permanent and most valuable resources of Florida. We hope it will be so. We congratulate them on having made a successful attempt to naturalize a culture so useful, and shall wait with lively interest the successful issue of the experiment.

The skein may be seen at this office.—*Charleston Mercury.*

Importation of Mulberry Trees.—The Hampshire Gazette says:—"Mr. Whitmarsh has just received at New York a large quantity of Mulberry trees, which were purchased in Europe at an expence of about \$15,000, and a considerable proportion of them are dead, in consequence of not having been properly packed. We understand that he thinks of commencing an action against his agent in Europe, to recover damages, as the trees were not put up according to directions."—This is a serious loss, not only to the enterprising importer, but to the public, as it will materially reduce the stock for propagation the present year. From present appearances the demand will outrun the supply for several years to come, and it is probable there will be an advance rather than a reduction in prices. Many a farmer will regret in the fall that he omitted to stock a small patch of land with the *Morus multicaulis* this spring—especially such as see their neighbors and friends receive more money from half an acre of land, than they do from their whole farms. That such will be the fact we venture to predict, and a few months will prove the truth or fallacy of the prophecy.—*Silk Culturist.*

Industry and frugality will prosper any man.

AGRICULTURE.

'How forcibly,' exclaims the Niagara Democrat, 'how forcibly should the present scarcity of all the productions of the earth, tend to draw the attention of the owners or cultivators of the soil to the necessity for exertions to introduce a system of more industrious and thorough husbandry. True, the seasons have been unpropitious—but the present crisis in agricultural productions throughout the country, is in a great degree to be attributed to another cause—a neglect of agriculture. Our whole social system has been diseased by the all absorbing business of *speculation*. It has drawn the mechanic from his shop, the professional man from his duties, and enticed the tillers of the soil to look for wealth in the inflated bubbles of artificial value, and build their hopes upon the sandy foundations of imaginary sudden gain, rather than by the patient, but sure process—the use of the plough. Among the types that the disease has put on, was one which created a species of contempt for the ordinary pursuits of industry. Those who have been wrapped in this cloud of airy nothing, have looked down upon plodding labor, as if it was out of the fashion, obsolete, and unnecessary. But the disease is working out its own cure; the whole machinery of the social fabric, so jostled and thrown out of gear by the excitement of sudden and unnatural gain, is undergoing repair.—A salutary retribution has inflicted the penalty of transgression, and is enforcing the fiat of the Creator, founded as are all his decrees, in immutable justice.—The retrospection of the last three years, will in the end do more to convince us that patient industry is the only natural, healthy means of grace—that, aside from this, all dependence is uncertain and untenable—than would the preaching of an army of political economists. The basis of all industry, of prosperity, must be the pursuit of agriculture. That neglected, it is impious to charge upon the seasons that portion of misfortune which is clearly attributable to our own errors. All the productions of the earth are extravagantly high; the consumer is threatened with starvation; and the producer is not bettered by the emergency, for he has but little to sell—he has neglected his fields; has left the most dignified and exalted of all human pursuits, to chase the retreating shadows of unnatural gain! Let us profit by the better lesson of experience; let us suppose, for such reliance is at all times the dictate of wisdom, that the season now opening upon us is to be one of plenty, that the earth will give good returns for all that is committed to its charge; and then if we come short of abundance, we shall at least have the consolation that we have neglected no duty necessary to the accomplishment of our designs.'

VIRGINIA MINES.

Amid the general complaints of distress and stagnation of business, we are happy to learn that the prospects of our mining operations are brightening. It was not to be expected that enterprizes, so novel in their character, and hazardous in their nature, could be conducted without much loss and disappointment in the beginning. Of all adventures they are most calculated to stimulate the sanguine and enthusiastic, who in their extravagant hopes and airy anticipations, are too apt to neglect those precautions and provisions, without which

no enterprize can be conducted to a successful issue. Experience was to be gained, in order to prevent the waste of capital and the misapplication of industry upon localities of injudicious selection; and many experiments were to be tried for the separation and reduction of the ores, ere a process could be hit upon, combining the indispensable requisites of simplicity, economy and abundant result. These difficulties have now, in a great measure been overcome; this knowledge has to a great extent been acquired; and we are confidently of opinion, that the mining operations of our country, under the direction of prudence, skill, and industry, will hereafter command a greater certainty of lucrative returns. Already we hear of several gold mines, in our section of country, under control of native enterprize, yielding handsome uniform, weekly products, and it is a fact obvious to all, that the irrational enthusiasm, which prevailed on this subject some time ago, has given place to a sober and intelligent confidence, of a much more satisfactory character. This confidence, is not confined to gold, but has extended to the operations in iron and copper, which have been undertaken in this section of the State. Appropos of the latter, we are pleased to learn that the workmen at the Phoenix Copper Mine, in Fauquier county, have just struck upon a vein of considerable size and regular formation, yielding the genuine copper pyrites, from which by far the greater quantity of the copper derived from Cornwall, is obtained.—The discovery is important, as it establishes the fact, hitherto doubted, of the existence in this country, or this State at least, of regular veins of productive copper ore.—*Political Arena*.

EASTERN SHORE RAIL ROAD.

The Corps of Engineers, consisting of Messrs Emory, Cutts, Waterston, Johnson, and Henry, who have for some time been engaged upon surveys for the Eastern Shore Rail Road and its lateral branches, arrived in this place on Wednesday evening. We understand that they have completed their work, having finished with the survey of a lateral route connecting Chestertown with the main stem at, or near Millington. This route they propose to locate along Chester river, on the Queen Ann's shore, as that shore is the most level, and the road can be made at much less expense. The inequalities of the land on the Kent side are such as to offer a serious difficulty in locating a route through our county. We have been promised a sketch of their operations, which we shall have much pleasure in laying before our readers.—*Chestertown Bugle*.

HOOKS IN HORSES.

Hooks, or haws are a horny substance upon the inner edge of the caruncle or washer of the eye, in the corner next to the nose. In its advanced stages, it causes great pain in the eyes, produces a tightness of the skin, and stiffness of the hind legs, and a spasmodic affection through the whole system, terminating in death. To cut these out successfully and not injure the eye, requires a steady hand and an experienced veterinarian. When performed, the horse must be confined, a common needle, with a strong thread passed through the horny substance; with this thread pull out the hook so as to discover its root; then,

with a keen knife, cut it carefully out. The piece to come out, is seldom larger than one-fourth of a five cent piece. By cutting too deep, you may ruin the eye, and if not deep enough, you fail in effecting a cure. Wash the eye every morning, until well, with weak spirits of camphor, or salt and water; bathe his legs up to the body, in warm vinegar and saltpetre, followed by oil or fresh butter, and give a mash of wheat bran and oats every morning, with a tablespoonful of sulphur, and a teaspoonful of saltpetre. The cure, with proper treatment, will be effected in a week.—*Amer. Weekly Messenger*.

[The stimulating washes recommended above, after the operation of cutting out the Hooks, we are persuaded, are unnecessary, if not injurious. We have often seen the operation performed, and always with success, although no local application was afterwards made. All that is necessary is to feed the horse light and let him rest for a few days. We have seen a horse as soon as turned loose after the operation, *shake himself* and commence feeding, although he was drooping, apparently distressed and refused food before.—Ed. *CHER. GAZ.*]

To remove a film from the eye, burnt alum blown in through a quill. Harlaem oil is better. Pulverised egg shells, sifted through a cloth, and a little loaf sugar, are also good.—*Amer. Weekly Mess.*

[A small quantity of finely pulverized *white vitriol* blown through a quill is the best application; to be repeated every two or three days till the film is removed, unless it causes inflammation.—*EDITOR.*]

The short horned Durham Bull *Ohio*, advertised by Mr. C. S. Clarkson in the Cincinnati papers, is said to be a rare specimen of that breed. He is 29 months old, and valued at \$1500. The rival Ox in that State bears the name of *Shakespeare*! What an association! The most intellectual of minds incorporated with the incarnation of Ox flesh.

Extraordinary Lamb.—We are informed by Mr. ROBERTS, Steward of the Roxborough Almshouse, in this county, that a fleece of *eleven and a quarter pounds* of Wool, was taken a few days since, from a lamb only a year old, belonging to the institution; and that after the fleece had been removed, the animal weighed, alive, *one hundred and forty pounds*. Can Chester, or any other county, beat this?

We regret that the BREED was not also communicated.—*Germantown Telegraph*.

The *Bee Moth* is one of the most troublesome objects bees have to encounter. We examined a hive the other day and had all the operations of this insect explained and pointed out. Just at twilight, in summer evenings, little white moths are seen fluttering about the Hives. They lay eggs just inside of the openings, and in the spring they hatch out and become the moth, resembling the maggots found in defective apples. Like Silk worms, they spin webs about the hive and close up the little cells of the bees and play a deuce with the comb. They ultimately destroy the bees as well as eat up the honey. At having

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	8 00	8 50
CORN, yellow.....	bushel	92	94
White,.....	"	90	96
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	10	13½
Louisiana 20a21-Alabama	"	—	—
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's.....	"	—	—
SuperHow. st. in good de'd	"	8 75	9 00
" wagon price,.....	"	—	—
City Mills, super.....	"	8 00	8 25
" extra.....	"	8 25	8 75
Susquehanna,.....	barrel.	9 00	—
Rye,.....	"	6 00	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,.....	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	—	3 00
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	12 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 00	6 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	51
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	2 85	—
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"	—	none
TOBACCO, crop, common,.....	100 lbs	2 50	3 00
" brown and red,.....	"	3 50	5 00
" fine red,.....	"	8 00	10 00
" wraperry, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	—	—
WHEAT, white,.....	bushel.	1 60	1 70
Red, best foreign,.....	"	1 50	1 67
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls.....	gallon.	36	37
" in hhds.....	"	35	do
" wagon price,.....	"	bbbs	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,.....	"	1 50	—
Wool, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

REMARK—The prices are but nominal, as there are but few transactions.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 26 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	11	12
Shoulders,.... do.....	"	11	11½
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	8½	8½
BUTTER, printed, in lbs. & half lbs.	"	25	37½
Roll,.....	"	25	31½
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old...	each.	5 00	7 00
Cows, new milch,.....	"	26 00	40 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87½	—
CHOP RYE,.....	"	1 75	1 87½
EGGS,.....	dozen.	18	—
Fish, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,.....	"	7 00	—
Herrings, salted, No. 1,.....	"	2 87	—
Mackerel, No. 1, ——— No. 2	"	8 00	9 00
No. 3,.....	"	—	4 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	bound.	9	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgin. 2
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg, do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	3a	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... 2½
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,.... 1		Bank of the Valley,.... 2
Salisbury,.... 2 per ct. dis.		Branch at Romney,.... 2½
Cumberland,..... 3		Do. Charlestown,.... 2
Millington,..... do		Do. Leesburg,..... 2
DISTRICT.		Wheeling Banks,.... 4
Washington,.....		Ohio Banks, generally 6
Georgetown, } Banks, 1p.c.		New Jersey Banks gen. 5
Alexandria, }		New York City,..... 1
PENNSYLVANIA.		New York State,..... 3a4
Philadelphia,..... 3a		Massachusetts,..... 3a3½
Chambersburg,..... 1		Connecticut,..... 3a3½
Gettysburg,..... do		New Hampshire,.... 3a3½
Pittsburg,..... 3½		Maine,..... 3a3½
York,..... 1		Rhode Island,.... 3a3½
Other Pennsylvania Bks. 4		North Carolina,.... 6
Delaware [under \$5].... 6		South Carolina,.... 8a10
Do. [over 5]..... 2		Georgia,..... do
Michigan Banks,..... 10		New Orleans,..... 15
Canadian do..... 10		

VALUABLE CATTLE FOR SALE.

THE undersigned is authorized to sell the following valuable Cattle, the whole the get of YOUNG MALCOLM. Young Malcolm is represented to be the handsomest short horn in Maryland; he was got by TECUMSEH; he by MALCOLM, out of ZENOBIA, both purchased of Col. JOHN HARE POWEL, by the late CHARLES CARROLL OF CARROLLTON.

2 full blood Durham heifers, 2 years old, in calf by Young Malcolm	
1 do do 1 year old	
1 bull Calf, half Durham, half Devon, a perfect beauty, 13 months old	
1 full blood Durham Heifer, 2 years old	
1 7-8 Durham bull Calf, 3 months old	
1 Bull Calf, half Durham, half Dutch, or Holstein, 3 months old.	
1 full blood Durham bull Calf, 6 weeks old	
1 3-4 Durham bull Calf, 2 weeks old.	

Any gentleman wishing to procure a stock of this celebrated breed of animals, or of adding to his present herd, will have an excellent chance of doing so, by applying to EDWARD P. ROBERTS, Baltimore, Md.

P. S. All letters of inquiry must be post paid. j 13

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

HAZELWOOD FEMALE ACADEMY,

FIVE MILES N. W. OF BALTIMORE.

This institution, situated a short distance from the village of Franklin, in a highly eligible and healthy location, will be re-opened for the reception of pupils, under the care and superintendence of Mr. and Mrs. THOMPSON, on Monday, the 12th of June.

In addition to the efficient aid already procured, in the various departments of Literature, Mr. and Mrs. T. can promise the patrons of the Institution, a regular series of LECTURES from the following eminent gentlemen, viz. On Moral Philosophy, Francis Waters, D. D. Natural Philosophy, J. H. Miller, M. D. } Professors in Chemistry & Botany, Ed. Foreman, M. D. } Washington Medical College.

Exact Sciences, Richard Cotter, A. M. Professor of Mathematics in Boisseau Academy.

Polite Literature, S. W. Roszel, M. D., Principal of Boisseau Academy.

BOARD OF VISITORS.

Rev. Dr. Thomas E. Bond	David Stewart, esq. Frank-
Rev. J. G. Morris,	lin st.
Charles F. Mayer, esq.	James Barroll, esq.
J. P. Kennedy, esq.	Jonathan Meredith, esq.
John Prentiss, President of	Nathaniel Williams, esq.
Baltimore College	

TERMS.

The Scholastic year will be divided into two sessions of five months each.

Board and tuition in the English and Latin languages, Mathematics, Moral and Natural Philosophy, Chemistry, together with the advantages of all the Lectures, (per session) \$100
French, Spanish and Italian, (each) 10
Music, Vocal and Instrumental, 30
Drawing (with materials), 12
Washing and Bedding (if required) 15
Stationary at store prices.

The tuition fee will be due, and payable to the Institution, within the first four weeks of each session.

Any further information in reference to the above Institution, will be cheerfully given by Dr. ROSZEL, Boisseau Academy, St. Paul's street, or address Mr. and Mrs. Thompson, Hazelwood Academy, near Baltimore. June 10—13 4t

13,000 MORUS MULTICAULIS TREES.

The subscriber has received 13,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,
Baltimore, Md.

March 7. 4t.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do. exclusive of the wheels, shafts and axle,	60
For applying the machinery to a common cart	45
For the machinery alone	40
Including the patent fee in each case.	fe 28 3t

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THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 9.

BALTIMORE, MD. JUNE 27, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 27, 1837.

We are indebted to some zealous friend of agriculture for a communication, through the post office, giving a description of Mr. Heathcoat's steam plough, which we would publish with great pleasure, but that several months since we inserted a more full account of it. We are nevertheless equally indebted to the gentleman, who enclosed it to us, for his good intentions, and here beg him to receive in return our most grateful acknowledgments.

We acknowledge with pleasure a present from the author, of a copy of "The Western Address Directory," compiled and written by Mr. Wm. G. Lyford. In taking a rapid view of this work we have been very forcibly struck with its great value to all business men, and especially those who trade with the west. Besides containing the cards of merchants residing in Pittsburg, Wheeling, Zanesville, Portsmouth, Dayton, Cincinnati, Madison, Louisville and St. Louis, it has many highly interesting historical, topographical and statistical sketches. The work is well gotten up, and comprises a mass of information of the very first importance, and we sincerely hope its widely extended patronage may compensate its indefatigable author for the skill, industry and talents he has displayed.

We regret to find by a recent number of the "*Silk Worm*," that that excellent little periodical is to be discontinued. It was an able and safe co-adjutor in the cause of the silk culture, and was "commenced by the editor, not with any speculative view of profit to himself," but from "a patriotic desire, bordering on enthusiasm, to aid in introducing and forwarding a delightful branch of industry, which he was confident would be of greater benefit to the nation than any other." It was to have been hoped that motives so laudable, when backed by talents and industry such as were

exerted by our old friend Blydenburgh would have secured for his work a generous patronage, but we are sorry to find by his notice that its publication will be arrested for want of support. This is the more to be regretted, and will awaken the greater surprise, when it is considered in connection with the fact that there never was a period when the silk culture had a greater number and more zealous friends than it has at present. There are some things inscrutable to human observation, and among these we rank the discontinuance, for the cause set forth, of so useful and spirited a work as that of the *Silk-Worm*. It has been said with great point and beauty of thought, that the battle is not always to the strong,—and surely, had it not been so, the intelligent editor in question would not be compelled, by force of circumstances, to retire from a field where his usefulness has been so manifest.

SPRING WHEAT.

A gentleman in Virginia, who purchased a small quantity of spring wheat, with a view of testing its adaptation to his latitude, last spring, writes the following encouraging account of it. The opinion of his neighbors, is, that it will yield from 16 to 18 to 1 of the quantity sown, and what is somewhat remarkable, be ready to cut before his winter wheat. Should these opinions be realised, the facts suggested will prove of deep moment, and go far to render the spring variety of wheat a deserved favorite with agriculturists. Early in the spring, we procured a quart of Italian spring wheat, which we sowed in our yard, but it became so rank that it lodged and we were compelled to cut it down; it has, however, grown up again, and is now heading out very beautifully, and looks as if it would make us a generous return. Subsequently to the sowing of this little experimental patch, we procured through a friend a barrel of the same variety of wheat, which we sowed on an acre and three quarters of land, and we are happy to say that it promises well. As it was late before we obtained it, it is not so forward as our fall sown grain, but from present appearances, we apprehend no fears of its making a liberal yield.

We were not so fortunate with our experiment on "*Skinless Oats*" as our Virginia correspond-

ent, for although we sowed half a bushel, not a kernel of it vegetated, and we were forced to convert the ground it occupied into a potato patch; but as we are not apt to yield to disappointments, and God knows we have had our full share of them through life, we shall try again next year, when we hope our perseverance will be rewarded.

Extract from a letter to the editor, from an esteemed correspondent residing in Virginia, dated June 19th, 1837.

"The spring wheat I purchased in the spring is very promising. I sowed it about the last of March, in red clay soil, and although we had in April several weeks of very dry and unfavourable weather, it has escaped the fly and produced a luxuriant growth; it is now in head, and I think will be ready to cut before any of my winter wheat. My neighbors, to whom I have shewn it, think it will yield 80 or 90 lbs. 5 lbs. was the quantity sown. I purchased at the same time a pint of *Skinless Oats*—sowed it about the same time; it came up badly, only here and there a stalk—I think, however, I shall get about a quart, which I hope will have become acclimated, and will vegetate better."

PROGRESS OF THE SILK CULTURE IN VIRGINIA;

OR, THE BELLONA ARSENAL CONVERTED INTO A COCOONERY.

We publish in another column a very interesting communication from a distinguished citizen of Virginia, describing the *Bellona Arsenal*, situated on the *James River*, about 12 miles above Richmond, which it is contemplated to convert into a *Cocoonery* for the feeding of silk worms, the general government, with a liberality worthy of all praise, having generously bestowed the use of the establishment with a view of promoting the culture of silk. From the description of the buildings, we are inclined to believe that they are competent to accommodate from 8 to 10,000,000 of worms, and from its proximity to Richmond, whether the requisite labor can be annually drawn, at little expense and trouble, we think the location a most happy one for making an enlarged experiment—such an one as, should it be conducted, as it doubtless will be, upon proper principles, will establish not only the practicability of the culture, but its highly profitable character, to the satisfaction of every intelligent and well judging mind.

The project, it appears from the communication of our correspondent, was conceived by Captain Thos. Mann Randolph, of Goochland county, and although we are an entire stranger to that gentleman, we take this occasion to tender to him the unfeigned homage of our thanks, and in the sincerity of our heart to wish him entire success. The enterprise, in which he has so laudably engaged, is one that the most gifted sons of Virginia, in her best days, might well be proud of; for it is one, which if pursued with energy and mind, must lead to results that will place the high-souled state that gave birth to Washington where she ought to be—first in the confederacy. Should this enterprise succeed,—and nothing but wilful mismanagement can prevent it—who can estimate the benefits which must result to Virginia? Who can form at present any thing like a calculation, or an approximation to one, of the value of the silk she is destined to produce in twenty years from this period? The grounds attached to the Bellona Arsenal are in the whole 27 acres; these, if properly planted are competent to produce mulberry foliage sufficient to feed as many millions of worms, when the trees, if planted in hedge form, shall have arrived at the age of 20 years—at 5 years old they will afford foliage for the support of half that number of worms. Indeed, should the *morus multicaulis* be planted, we believe that at two years old they would yield sufficient leaves per acre to feed half a million of worms. Let us submit these data to the test of figures. The house accommodations are equal to the raising of 10,000,000 of worms; the ground to the production of food for 27,000,000 at the expiration of 20 years, and under the contingency we have named, of 13,500,000 in two years.

If 27,000,000 of worms should be fed, the product would be as follows. As 3000 worms will make 1 lb. of silk, so will 27,000,000 make 9000 lbs. Now let us see how would stand the account of debit and credit:

9000 lbs. of Silk at \$4,	\$36,000
<i>Deduct</i>	
Expenses on the culture and feeding,	
\$155 per acre, on 27 acres,	\$4,185
Loss by death of worms, say 20	
per cent.	7,200
	11,385

Profit on 27 acres, supposing each acre capable of feeding a million of worms, \$24,615
Now let us suppose that each acre will only feed half that number of worms, and how stands the account? Why we will have a net profit of half the above sum, viz. \$12,307 50 cts.

Allowing the capacity of the grounds to be equal to the feeding of 10,000,000, and we have the result thus:

As 3,000 worms will make 1 lb. of silk, so will 10,000,000 make 3,333 $\frac{1}{3}$ lbs.

3,333 $\frac{1}{3}$ lbs. of silk at \$4 per lb. is \$13,333 33 $\frac{1}{3}$

<i>Deduct</i>	
Expense on 27 acres at	
\$155 per acre,	\$4,185 00
Loss by death of worms, say	
20 per cent.	2,666 66 $\frac{2}{3}$
	6,851 66 $\frac{2}{3}$

Profit on 27 acres supposed to be capable of feeding 10,000,000 worms, \$6,481 66 $\frac{2}{3}$

If then, we should take either of these calculations as our guide, there is still profit enough left to satisfy any reasonable mind. For ourself, while we hold the last to be too low, we honestly believe the first to be attainable by good management and care. But suppose two crops of worms should be fed as our correspondent intimates, and what would be the result? Why double the profit. And what, we would ask, would there be to prevent a second feeding? The foliage producible upon the 27 acres, we hold to be more than adequate to the feeding of either number of worms, so that while the surplus leaves would be being fed out to the second crop, those trees which were stripped during the first feeding, would be putting out and maturing a second crop of leaves, to meet the demand, when those which had been unconsumed in the first instance were exhausted. We are not the advocate of second cropping, when the supply of leaves are merely competent to the demand of the number of worms to be fed, but in this case, holding as we do that a surplus would exist, we can see no possible objection to such a course; on the contrary, we believe that great pecuniary benefit would arise from it, without any injury being done to the trees.

We have thus spoken of the profits exclusively growing out of the feeding of the worms alone, without saying any thing concerning the sale of mulberry trees, which in such an establishment would be very heavy. If prosperous, its prosperity would give increased zeal to the friends of the culture, and multiply them in all directions, so that besides the profit springing from the silk, a very handsome revenue would accrue from the sale of trees, inasmuch as the Bellona Arsenal, under its new destiny, could not fail to become, to a very large extent, the nursery of all the surrounding country whence to draw their supplies.

To the Editor of the Farmer and Gardener:

As the country is much indebted to your exertions for advancing the culture of Silk, I have thought that some account of an enterprize now on foot, for engaging in that branch of industry, might not be unacceptable.

A gentleman of Goochland, capt. Thomas Mann Randolph, has just obtained from the general government the use of the Bellona Arsenal, situated on James River, about 12 miles above Richmond, for the prosecution of this business. The arsenal was built during the administration of President Monroe; but has within a few years past been abandoned by government, on account of the inconvenience of its locality, for a repository of arms. The buildings are of a most extensive and commodious description, and are perhaps as well adapted to the purposes of a cocoonery, as if they

had been erected expressly for that object. They are also, as may be supposed, constructed of the most durable materials. The principal building is one hundred feet long by thirty feet wide in the clear, containing besides the basement and the garret, three stories of those dimensions, each of about 12 feet pitch. There is also another building of the same size, but divided into a number of apartments. Besides these, there are six other houses of considerable size; and two neat pavilions, which were formerly the residences of the officers of the garrison. The whole number, with the court enclosed, occupy about two acres of ground; and the public lands amount to twenty-five acres more.

It will readily be perceived that this situation may be converted into one of the most extensive cocooneries in the country. And it is worthy of remark, that the government has acted with commendable liberality, in placing it in possession of a private individual, on the terms it has done. Being desirous of promoting the culture of silk as far as its legitimate powers may extend, it exacts no charge for the use of the lands and buildings; and gives the assurance that there is no probable contingency, which will render its re-occupancy by the government, necessary for a number of years.

The number of worms which may be fed in such an establishment, it may be difficult to determine with any degree of exactness. In Count Dandolo's cocoonery, he fed 800,000 in a room seventy-seven feet long by thirty in width. In one of the rooms, therefore, in the main building, at Bellona, at least a million may be accommodated—making for the three stories, three millions in one house. In the other houses there is ample space for as many more; amounting in the whole to six millions, and if more than one crop can be raised, which appears to be the opinion of many intelligent silk culturists, the double of that number may be fed in a single season. No land can be better adapted to the growth of the chinese mulberry; and any additional quantity may be obtained on desirable terms.

It is understood that the business will be one of individual enterprize. Intimations have been received, that if it was intended to form a company, the stock would be taken without any difficulty. In connection with the cocoonery, an extensive nursery for the propagation and supply of the *Morus Multicaulis* on reasonable terms, will be formed: and by the end of the next year, a hundred or a hundred and fifty thousand plants, will probably be in readiness to stock the grounds, and supply in part, the demand for the mulberry.

Yours with respect,
Chesterfield, Va. 14th June.

BUIST'S EXOTIC NURSERY—Philadelphia.

While on a visit a few weeks since at Philadelphia, we called at the above excellent establishment, and were in doubt which most to admire, the splendid collection of plants, or the unaffected gentlemanly deportment of its intelligent proprietor. It has been our intention ever since, to give, in our plain way, a description of the establishment, but the press of our business has hitherto prevented us, the which our readers will

have no cause to regret, as in the one which follows they will find much more justice done to it than we have vanity enough to suppose ourself capable of rendering.

[From the Magazine of Horticulture.]

R. Buist's Exotic Nursery—Since the spring of 1835, the time of our last visit to this place, Mr. Buist has erected a camellia house and a small stove. The former is about 50 feet in length and 20 in width, and is built with a slope to the north instead of the south, as is usual in the erection of all similar structures. We are glad that Mr. Buist has adopted this method: the camellia has now become so popular a flower, and the varieties are so numerous, that there will probably soon be erected houses exclusively for their cultivation; and we would here suggest to those gentlemen who intend to build such, the propriety of constructing them with a slope to the north. The camellia will not flourish in a house exposed to the direct rays of the sun; and it would be certainly preferable to grow them in a house facing the north, where they do not fall but an hour or two in the middle of the day, and then so obliquely as to destroy all their power, than in ordinary ones, where the plants always require to be shaded, to prevent them from being scorched. The flowers also remain in perfection a greater length of time, and the air of the house is not kept in such a continual state of aridity, which is very injurious to the well doing of the plants. We noticed that Mr. Buist has the camellias placed at a good distance from the glass; this we much approve of: we know from our own personal experience that camellias, placed upon a stage near the glass, rarely make a healthy growth, and, when growing in small pots, the continual variation of the state of the soil is extremely prejudicial to their health. No plants will bear growing at a greater distance from the glass than camellias.

The interior of this house is constructed with a front shelf, about four feet in width; between this and the back border is the walk. In the border are planted out several camellias at various distances, and the space between them is filled with plants in pots. The front shelf was filled with azaleas and other plants, which prefer a cool temperature and shady situation. Of camellias Mr. Buist has a considerable number; but his stock is, just at this time, very much reduced. We observed but very few large plants; these have been mostly purchased by amateurs making collections of this splendid flower, who are zealous to procure strong and well furnished plants. Mr. Buist has raised one very fine seedling, which he is now propagating as fast as nature and art will allow, so as to possess a stock before he lets it go out. It is a white flower, well formed, with a distinct red stripe through the centre of each petal; another seedling was just showing color, and promised to be a white one. [Since these remarks were written we have learnt that it has expanded, and that it is a double white of surpassing beauty, equal, if not superior, in elegance, to the old double white, and only to be appreciated from an actual inspection of the flower. This is saying considerable in its favor; but we see no reason why a seedling equally as good as the double white should not be obtained in this country as well as

by the Chinese: there can be no doubt but that it was by mere accident that this fine old variety, as well as all the double Chinese ones, was produced.] We shall give a correct description of it when we shall have become acquainted with its character. Mr. Buist has three seedlings, raised by J. B. Smith, esq. of this city; the names are Philadelphia, Ne plus ultra, and Pennsylvania; of their respective colors and merit we have no knowledge, but have learnt that they are very fine. Mr. Buist is propagating them as fast as possible. We found several kinds in bloom; among others, C. j. var. glòria mundi, Róssi, Rósa mundi, aucubafolia, coccinea, compacta, Goussonia; fulgens is a very showy red one, with a large flower and loose petals; Fairlèa, a pretty red, faintly touched with white; Vandèsia is nearly the color of corallina, but the flower is much larger—it is a fine deep red, elegantly blotched and touched with pure white, and the contrast between the two colors is most striking. One called ròsea, so received from England, and which Mr. Buist has designated China, to distinguish it from the common ròsea or Middlemist's, is an exceedingly neat flower, full as double as the myrtifolia, but of a lighter color. Fascicularis of the French, and Wiltóni of the English, Mr. Buist informed us, were one and the same thing. To our judgment, a flower of the latter, open here, appeared identical with fascicularis, which we had a short time previous seen at Mr. Wilder's; it is a pretty variety. Wiltóni, of some English collections, appears to be another variety; large plants which have flowered both at Mr. Wilder's and in our garden, have shown no appearance of white in the flowers. Palméri álba and candidissima, both in this collection, are said to be fine white ones. Mr. Buist's camellias look very strong, and in excellent health. In this house we also noticed two new azaleas in bloom; one was the A. indica var. Gillinghámí, and the other phœnicea elegans; each have rosy purple flowers, very large, and in abundance, and are most valuable additions to the green-house or conservatory.

In the stove we found a variety of plants, and a good stock of the Clíanthus puniceus, Benthámia fragifera, Russelia júncea, and Manétia glabra; of Beaumontia grandiflora, Ixora banducha, Lantana Sellowii, Caladium bicolor, and some other new things, there is also a good stock; of that elegant stove climber, Ipomœa Horsfallæ, Mr. Buist possesses a few plants. We here saw some of the pitcher plants, Nepenthes distillatòria, which Mr. Buist had raised from seed; they were bearing a few minute little pitchers, which were extremely curious. We hope the plants will be kept alive, and increased under Mr. Buist's care, and shall expect to see them introduced into all hot-houses. Of Dionœa muscipula we observed a good stock; the plants are procured in abundance in their native localities at the south, and are intended for transportation to England, where they are extremely rare.

In the old range of houses the plants look vigorous and healthy. There has been a great number of new plants added during the past two years; and it is impossible for us, from our very limited visit, to mention but few of the most rare and beautiful of these: *Mimulus cardinalis*, (see p. 181,) *Lechnaúlia*, formosa, beautiful; *Fuchsia* sp. var. *grandiflora*, raised by the Messrs. Young,

of Epsom, and said to be splendid; *Pimelea decussata*, charming; *Lophospermum caruleum*; *Gardoquia Hookeri*, exquisite; *Gloxinia álba*; *Tacsônia pinnatistipula*, very elegant; *Ceanothus azureus*; *Clivia nobilis*, &c. &c. Mr. Buist's stock of heaths is very much reduced; plants of *E. rubida* only were in bloom. Many new calceolarias have been added; some of them, we suspect, if true, very superb: this is a tribe of plants possessing great beauty, and deserving of general cultivation: no plants more enliven a green-house throughout the spring and summer than the different new varieties which have now become so numerous.

In geraniums, Mr. Buist has added most of the fine ones, such as Dennis's Perfection, &c.; the plants of these sorts are small and not yet in bloom. In roses there has been an accession of many fine varieties; among others, is a shrubby mimulus, which, Mr. Nutall states, surpasses all others; some of the Calochorti seeds, and a few of them are probably the same plants that were sent to England by Mr. Douglas. A cactus, believed to be the *C. nobilis* L., was just beginning to grow; and several other plants, one of a singular habit, throwing out long stolones; their names cannot be ascertained until they bloom. Many of the seedling plants will bloom the coming summer, and among them some beautiful things are looked for.

Mr. Buist is now doing a very extensive business, principally with the south, where, with a mild climate, a great part of what are with us green-house plants flourish as well in the open air as the common hardy shrubs of our gardens. The great expense attending the erection of structures for plants, in the Middle and Eastern States, is a great obstacle to so rapid an increase of floricultural taste as would otherwise take place. It is beyond the means of many persons, who have a great love for flowers and shrubs, to indulge in it to any extent, from the high price of labor, and the expense attending the construction of suitable green-houses, &c.; and it is therefore to hardy shrubs and plants that we should direct our attention. By a judicious selection of these, and the introduction of all that are sufficiently hardy for our climate, the beauty of the garden may be enhanced in a two-fold degree to what it is at present; in particular, hardy herbaceous plants are much neglected, and it would give us great pleasure to see them enriching the borders and parterres of gardens, now barren of beautiful flowers, or filled with such as are scarcely worth growing from their inferiority.

Mr. Buist has now engaged Mr. Scott, late of Knight's Exotic Nursery, King's road, Chelsea, England, to take the charge of his establishment. The business concerns of his nursery have become so extensive, that he has, personally, very little time to devote to the propagation and cultivation of plants. Under the skill of Mr. Scott, the rarest and most difficult plants to propagate will be increased to supply all demands.

Fine Fruit—We were a few days since indebted to the polite attention of Wm. B. Everett, esq. for a dish of remarkably fine hautboys, of superior size and flavor. We measured some, which were nearly three inches in circumference, and weighed over a quarter of an ounce.—*Kent Bugle*.

INDIAN CORN.

AN ESSAY ON INDIAN CORN

DELIVERED BY

PETER A. BROWNE, Esq. L. L. D.

Professor of Geology and Mineralogy in Lafayette College, Pa. Professor of Geology in the Cabinet of Natural Science in Montgomery county; member of the Geological Society of Pennsylvania; and corresponding member of the Cabinet of Natural Science of Chester county, Pennsylvania, read before the latter Society, April 22, 1837.

ZEAL MAYS. "Maize" or "Mais." "Indian Corn" or "Indian Wheat." "Blé ou Bled de Turquie ou d' Inde" (French.) "West India Corn" (Spanish.) "Lenehasquem" (Lenni Lenape.) "Melomin" (Chipeway).*

* 1. Z. MAYS, 1. *Leaves Lanceolate, keeled, entire.* Willd. Sp. 4. p. 200.

Vulgo—Corn. Indian Corn. Maize.

Root annual. Culm 6 to 8 or 10 feet high, and an inch to an inch and a half in diameter, simple, (often producing suckers, or branches, at base), nodose, semiterete, or with a broad channel on one side, smooth, solid with pith. Leaves lanceolate, acuminate, nerved, keeled, 2 to 3 feet long, and 2 to 4 or 5 inches wide, smooth beneath, pubescent on the upper surface, ciliate on the margin: sheaths striate, smooth, conspicuously pubescent along the margin; ligule short, obtuse, slightly pubescent and ciliate. Staminate Flowers in terminal paniculate racemes. Spikelets somewhat unilateral on the branches, mostly in pairs, one subsessile and the other pedicellate, each 2-flowered. Glumes herbaceous, nerved, pubescent, the lower a little longer. Paleæ 2 to each floret, nearly equal, membranaceous, ovate-oblong, obtuse, subdentate and ciliate at apex.—Anthers greenish yellow. Scales collateral, cuneate, truncate, fleshy and smooth. Pistillate Flowers in solitary, axillary, sessile spike, (1 to 3 or 4—usually about 2 of these spikes, or Ears—on each plant). Spikes enveloped in spathe-like convolute sheaths,—the outer or lowest of these sheaths (being the one next the culm) thin and membranaceous, with two keels. Spikelets 2-flowered, arranged in longitudinal series on a cylindrical spadix, or receptacle, 6 to 12 inches long,—the series or rows, always in pairs: florets sessile, the lower one abortive. Glumes 2; the lower one rather shorter, very broad, deeply imarginate, or somewhat 2-lobed, ciliate, the upper one suborbicular. Abortive floret with 2 paleæ; the lower one orbicular, embracing the fertile floret, the upper one shorter, with the margin inflexed. Fertile floret with two or three paleæ; the lower one suborbicular, the upper one very broad (or some 2). Ovary smooth, obovoid, obtuse or rounded, compressed at base. Style very long, filiform, projecting beyond the sheaths, pendulous, often purple: Stigma pubescent, bifid. Seed compressed, orbicular reniform, or cuneate, often indented at apex, sitting transversely on the cylindrical or conic receptacle, and partially imbedded in sockets formed by the persistent glumes and paleæ.

Hab. Cultivated fields: common. Fl. July—

The word "Zea" is borrowed from the ancient Greek word "Zao," "to live," the seeds contributing eminently to the support of life. †It is rendered in Latin "tritium," (wheat,) and "hordium," (barley,) from which it is inferred, that in its original it meant "grain" only. In like manner in English the word "corn," which is derived from the Saxon "corn," and the German "Korn," includes "all seeds that grow on ears, and not in pods, and that are made into bread." "Corn," in political economy and commerce, is synonymous with "bread stuffs." All the British statutes regarding grain, are called "corn laws." The words blé and bled in the French, and the word "Trigo" in the Spanish language, correspond with the word "Zea," as thus explained. Blé was also the Norman name for corn.‡

The class Zea is divided into two orders. 1st. Zea mays. 2d. Zea curagua.§

The Zea belongs to the 19th class of plants called Monœcia (one house,) because the plants of this class have imperfect flowers, the stamens and pistils growing on the same plant, but on separate corollas.

The orders of this class are determined by the numbers of styles and pistils. The Zea mays belongs to the third order "Triandria," three stamens.

In the natural orders it is arranged under the 4th "Gramina;" family "Cerealia," Cerealis, any grain from which bread is made, from "Ceres," the goddess of corn.

In books of horticulture it is ranged under "cultiferous crops."

Some writers call the Zea mays a "gigantic grass." Col. Taylor of Virginia, speaking of deep ploughing, calls it "a little tree."

It is generally ranked as the third grain, in point of utility, by European writers; they placing before it, rice and wheat; but in the United States it takes precedence of all other grains.

I propose to treat of this valuable plant under the following heads, viz:

I. To what country did it originally belong?—Is it a native of America?

II. Where is it now cultivated?

III. How much is raised in the United States?

IV. Of the varieties of Indian Corn.

August. Fr. Sept.—October.

Obs. There are several Varieties of this plant,—with the seeds yellow, white, or sometimes dark purple; and one which is smaller, and comes sooner to maturity. I have also seen a singular variety, in which every seed on the receptacle appeared to have its own husk, or spathe-like covering, in addition to the general envelope. The Indian Corn is one of the most interesting of the Gramineæ—rivalling the Sugar Cane, and the Rice, in intrinsic value,—and, in this region at least, ranking next in importance to Wheat itself. It is universally cultivated here, being generally the first in the routine of the crops, in breaking up the Lay, or sod. The seed is planted early in May. No other species of the genus is known in the United States.—[DARLINGTON.]

† Darlington.

‡ Kelham's Norman Dictionary.

§ Reese's Cyclopædia.

V. Which kind is to be preferred?

VI. The capacity it has of retaining its germinating power?

VII. The methods of cultivating it.

VIII. Is the Indian corn capable of being improved by culture?

IX. Its cultivation compared with other grains.

X. The different uses to which it is applied.

I. To what country is the world indebted for this valuable plant?

Is it a native of America?

I state the above as two distinct questions, for it might be that the Indian corn was indigenous to different countries. But it was no apprehension that the Indian corn had been a native of any other part of the world that induced me to make the suggestion.

Not to trouble the reader with the numerous other writers who have dwelt upon this subject, I will remark that in "Lieber's Encyclopædia Americana," published in 1831, it is stated, that "the native country of the Indian corn remains still undetermined." If this be the fact, is it not high time that the question were decided? I believe that there is on record information enough to put it forever at rest; and mine has been the task to collect and collate it. It is not meet that a nation, who (to use the words of Col. Taylor,) have lived "in it," and almost "upon it," for upwards of two hundred years should be unable to tell their children whether the Indian corn is a native or exotic plant. It is a reflection upon, not only the learned, but the mass of the community, that their great staple commodity—the plant that demands and receives the patronage, the skill, and the industry of a large agricultural part, of a great agricultural nation, should be so imperfectly known. It is no longer to be tolerated, that a crop—which has not been too strongly described, as the meal, meadow, and manure of the American farmer, should be treated with such neglect, that in a scientific work, published in our own days, and in our own country, it should be represented as "an unknown," whose native country is undetermined.

I have therefore taken extraordinary pains to ascertain its history, and after I have given the details, it will be found very easy to pronounce, to what portion of the globe the rest of the world are indebted for the Indian Corn.

I propose to divide this part of the subject into the following heads of inquiry.

1. Has the Indian corn been mentioned by any Greek or Roman writer?

2. Has any traveller, prior to the discovery of America, noticed the culture of Indian corn in any other part of the world?

3. If it is not a native of America, whence was it derived and when transplanted?

4. Was it known to and used by the aboriginal inhabitants of the West India Islands, and of South and North America before, or at the time of, their being first visited by Europeans?

5. What is the general opinion of learned persons upon its origin?

6. Are there any recent discoveries that will bear upon this subject?

A few words on these questions in their order.

1. Has the Indian corn been mentioned by any Greek or Roman writer?

This point has been conceded by the author of the article quoted from Lieber's *Encyclopædia Americana*, and in so doing he has done no more than was required of him at the hands of truth and candour. The "corn" which the disciples of our Saviour plucked and eat on the Sabbath, as they went through the corn fields, was not *Indian corn*; for in Luke vi. i. the disciples are represented at *rubbing the ears* in their hands to get at the grains, an operation which would have succeeded with wheat and other small grains, but which was altogether inapplicable to Indian corn.

Pliny speaks of a certain dish much used and admired by the ancient Romans, called "*alica*," which was made of Zea. "*Alica fit e Zea quem semen appellavimus.*" But "*Zea*" here means "*spelt*," or according to some, "*beer barley*" or "*beer corn*." See Ainsworth's *Lat. Dict.* which cites Pliny.

2. Has any traveller, prior to the discovery of America, noticed the culture of Indian corn in any other part of the world?

It is well known that, previously to the discovery of America, many intelligent travellers visited China, India, and other parts of Asia, as well as Africa; that some of these have been very minute in their descriptions of the vegetable productions of these countries; yet it is not pretended that any one of them has mentioned the cultivation of Indian corn. This universal silence upon the subject furnishes negative testimony, at least, and negative testimony of the strongest character, that the Indian corn was then an unknown plant.

It can hardly be supposed, if the Indian corn had been growing in those countries, that it would have escaped the notice of travellers; and this negative testimony is strengthened by the circumstances, that immediately after the expiration of a sufficient length of time from the discovery of America, to have enabled the curious to have transplanted the productions of this hemisphere to other parts of the world, we find intelligent foreign travellers employing their time in describing the Indian corn and its mode of culture. I have among my notes numerous instances of this class, which I forbear to press upon the reader.

3. If the Indian corn is not a native of America, whence was it derived, and when was it introduced in America?

Is it not a great objection to the proposition that the Indian corn was introduced into America from another part of the world, that no two writers agree whence it was originally derived. One asserts that it was brought from India, supposing it to have been introduced through Persia to Africa; another says that it originated on the western coast of Africa, &c. In like manner are these writers at fault, when the time when it was introduced into America is required to be known. We will presently see the reasons of this discrepancy as to the place from which the Indian corn is supposed to have been brought, and total inability to shew when it was transplanted into the Americas. But these reasons will serve for any thing better than to shew that it was not a native of this country.

4. Was the Indian corn known to the aborigines of any portion of this hemisphere, and of those portions in the order in which they were first visited?

Hispaniola was one of the first of the West India Islands known to Europeans: it was discovered in 1492, by the Spaniards, before they had seen the continent; and therefore I shall commence with the Spanish West Indies. That the Indian corn was found in these Islands is proved by the following:

The Spanish word for *Corn*, used as a generic term, and also for "wheat," according to Delphini, is "*trigo*," which is derived from the Latin "*triticum*." But the Spaniards use the word "*mays*," which they define to be "*West India corn*."

Again. In Jos: de Acosti's *Natural History of the West Indies*, lib. 4. ch. 16, p. 236, speaking of the mays, he calls it "*Indian wheat*, to make bread of. He says that it was the only grain round in the West Indies by the Europeans:—"that it grows upon a long reed with large grains, and sometimes two ears on a reed, on one of which seven hundred grains have been told:—"that they sow it grain by grain and not scattering, as is done with wheat; and it requires a hot and moist soil. There are two sorts of it, (says our author,) one large and substantial, the other small and dry, which they call '*moroche*.' The leaves of it and also the reed are very good food for cattle, green; and dry, it serves as well as straw. The grain is better for beasts than barley, but they must drink before they eat it; for if they drink after it, it swells and gives them pain. The Indians eat it hot, boiled, and call it '*mote*,' and sometimes toasted. There is a sort of it large and round, which the Spaniards eat toasted; they also grind it and make cakes, which they eat hot; and these, in some places, they call '*arepas*.' They also make bread, to keep, and sweet cakes of it. The Indians make drink of it, as done with barley; this they call in Peru '*azua*,' and in most other parts '*chica*;' it is very strong. They have also a way of extracting oil from it which is good, and serves instead of butter and olive oil." This writer spent nearly his whole life, which was a long one, in America.

The South American continent was discovered in 1498, and in Robertson's *History of America*, speaking of the agriculture of the aborigines of that country, it is said, "The chief thing raised was *maize*, known in Europe by the name of '*Turkey*' or '*Indian*' wheat, a grain extremely prolific, of simple culture, agreeable to the taste, and affording a strong healthy nourishment."

The Mexicans held in great veneration a goddess who presided over the *maize*, whom they called "*To-na-cay-ohu-a*," which means "She who feeds us." To her they consecrated the first fruits of the earth, as the Heathens did to Ceres.

The first account we have of any French navigator being on the American coast was in 1504. This nation endeavoured to effect the planting of a colony in Canada in 1594, but did not entirely succeed till 1603. M. Charlevoix, who wrote the earliest and most authentic history of Canada, which was then called "*La Nouvelle France*," in describing the culture of the earth there in 1721 says, "Outre que le grain, dont ce peuple font usage, sont des grain d'été, on pretend, que la

"nature du Terroir de ce pays-ci, ne permet pas d'y rien semer avant l'Hyver. Mais je crois que le véritable raison pourquoi les grains ne pousseroient pas, si en les semoit automne, c'est qu'ils se gateroient pendant l'Hyver, ou qu'ils pourriroient à la fonte des neiges. Il se peut faire aussi, et c'est l'opinion de plusieurs, que le froment, qu'on recueille en Canada, quoiqu'originellement venu de France, ait contracté avec le tems la propriété des grain d'été qui n'ont pas assez de force pour pousser plusieurs fois, come il arrive à ceaux, que nous semons en September & en October.

"Les feves, (ou plutôt) les fèveoles se sement avec le *maize*, dont la tige leur sert d'appui: Je crois avoir ouï dire que c'est de nous, que les sauvages ont reçu ce *legume*, dont ils font grand cas & qui ne diffère effectivement en rien de notre."

This author is so anxious to assert that it was from the French that the Canadians received the fèveoles, and claims nothing of the kind for the *maize*; the inference is irresistible that the latter was found in this country.

In his 3d v. p. 163, in giving an account of the plants belonging to Canada 'particulière au pays' he has enumerated "*Le maiz ou Bled de Torquie*."

M. Charlevoix tells us also that in 1564, when M. Landonnie arrived in Florida, the natives presented him and his party with *Indian corn meal*. "*Des farines de maiz*."

When the first effectual settlement was made in Virginia, in 1607, that country from the sea coast to the mountains and between the Potomac and the James Rivers, was occupied by upwards of 40 tribes of Indians, of which the most powerful were the Powhatans, the Mannahoecs, and Manacans; and we have the authority of Mr. Jefferson for asserting, that when the English first visited them, they found them using the Indian corn. Whether it was of spontaneous growth or was by cultivation, is not stated; but most probably (says Mr. J.) it was a native of a more southern climate, and was handed along the continent from one nation to another of the savages.—*Notes on Virginia*.

As has been said before, the French settled in Canada in 1603, and six years afterwards the Dutch possessed themselves of New York. The British colonists did not arrive at New England until the year 1620. At the time above mentioned, these Europeans found five Indian nations, viz. the Mohawks, the Oneodoes, the Oriondagoes, the Cayugas and the Sennekas, joined together by a league and confederacy, possessing an immense district of the American continent, reaching from the Atlantic to the Lakes. The Aridondacks, another tribe lived in Canada. The 'Five Nations' affected to think themselves a superior race to all the rest of mankind;—they called themselves '*Onguehonwe*,' which means 'men surpassing all others.' The white men were anxious to be made acquainted with the history of these nations previously to the Europeans coming among them; which having been related by the chiefs, and preserved [Colden's *History of the Five Nations*, London 1747,] will shed some light upon the

* Which is rendered, "wheat" and "barley."

* Lettre X. written in April, 1821.

question under discussion. It commentes in this way: "The Aridondacks formerly lived 300 miles above Trois Riviere, wherenow the Utawawas are situated; at that time they employed themselves wholly in hunting, and the Five Nations made *planting of corn* their business. By these means they became mutually useful to each other by exchanging *corn* for venison.—But a war broke out between the Five Nations and the Aridondacks, in which the former were the conquerors. *Soon after this*, (says this tradition,) the French arrived at Canada and settled at Quebec."

Carver, the celebrated English traveller, who traversed upwards of 5,000 miles of the interior of North America, tells us that the Ottagaumies, the Saukees, and all the eastern nations, were found *growing Indian corn*.

But Dr. Benj. Smith Barton places the LENNI LENNAPE at the head of the column of North American Indians, and they are generally acknowledged to have been of more ancient establishment in the country than many others.*—Their tradition was, that they were formerly a very powerful people, inhabiting the country to a great distance westward and along the sea shore east and south. The great extent to which their language was spoken, gives countenance to this tradition. Besides this the tribes along the Mississippi called the Delawares their 'grand-father.' Of all the Indian nations which formerly inhabited this country from Massachusetts to the Mississippi and between the Ohio River and the Canada Lakes, none but the five nations and the Delawares had a right to call a general council. It also appears from an inspection of Indian vocabularies that the language of the Lenni Lennape could be traced beyond the Canadian Lakes, on the North and in the South, among the Pampticoughs, who formerly inhabited North Carolina and Sawarano, who lived in Georgia, and even to South America. [Barton,] Massachusetts, Connecticut, Monongahela, Alleghany, Muskingum, Savannah, Mississippi, and Missouri, are all derived from the language of the Lenni Lennapes.

Now every thing which these Indians considered as *original* or *native* among them, they distinguished with the word "Lenni" placed before it; the oak and hickory they called "Lenni Hit-tuck," the original or *native* trees; the chub fish was original and common in all their rivers and brooks; they called it "*Lennameek*," the *original* fish: they called themselves the Lenni Lennape, the *original* people; and the *Indian corn* they called "*Lenchasquem*," "*the ORIGINAL GRAIN*," thereby declaring their opinion that it was a *native* of their country.

Peter Kalm professor of economy in the University of Aobo, in Swedish Finland, and member of the Swedish Royal Academy of Science, travelled in America in 1748 and '49, and in a work which he afterwards published, speaking of the Indians of North America, he says: "Their food is very different from that of the inhabitants of other parts of the world. Wheat, rye, barley, oats and rice, were quite unknown to

them. *Maize*, some kind of beans and melons, made up almost the whole of Indian gardening."—2d vol. p. 95.

"At first the Swedes settled in New Jersey and Pennsylvania were obliged to buy *maize* of the Indians for sowing and eating."—p. 111.

"The Indians had their little *plantations* of *maize* in many places, before the Swedes came into this country."—p. 114.

"Before the Europeans came to this country, the Indians *planted maize*, beans and gourds."—p. 192.

Peter Kalm was a pupil of Linæus, and a good botanist, and therefore his evidence is very creditable upon this subject. He died in 1778, sixteen years after Linæus published his second, and 25 years after he published his first edition of his *Species Plantarum*.

"In a work entitled "The British empire in America, containing the history of the discovery, settlement, progress and state of the British colonies in the continent and islands of America," 2d ed. London, 1741, vol. 1. p. 184,—the author says, speaking of New England, "Oats, barley, peas, beans, and all other sorts of advantageous grains, are cultivated and flourish here; but the *Indian corn* is most planted. There was no other corn in this country before the English came hither." I shall here insert the account of it given to the Royal Society, by Mr. Winthrop, who was a member. "The natives called it *Wichin*, and in some southern parts of America it is known by the name of *mais* or *maize*. The ear is a span long, composed of eight rows of grain, or more, according to the goodness of the ground; about 30 grains in a row. It is of various colors, as red, white, yellow, blue, olive, greenish, black, speckled, striped, and sometimes in the same field and in the same ear. The stalk grows six or eight feet high; that of New England is not quite so tall as Virginia, and at Canada it is shorter than in New England," &c.

At page 185, he says, "The Indians thrash it as they gather it, and dry it well on mats in the sun, and bury it in holes in the ground, lined with moss or mats, which are their barns."

At page 186, he says, "The Indians boil it until it becomes tender, and eat it with fish or venison, instead of bread: sometimes they bruise it in a mortar and so boil it. The most usual way is to parch it in the ashes, stirring it so artificially as to be very tender without burning. They beat it in a mortar and sift it into a fine meal, which they eat dry or mixed with water. The English mix it into a stiff paste and make bread of it, which they bake all day or at night. The best sort of food which is made of it is called *samp*," &c.

No Indian corn grows wild now; but both that and the kidney bean were found among the natives. The Indians have a tradition that the first grain of corn was brought hither by a blackbird, and the first bean by a crow.

In page 327, speaking of Calvert's first establishment in Maryland, the writer says, "The infant colony supplied themselves with Indian corn at Barbadoes, which, at their first arrival, they began to use to save their English store of meal and oat meal. The Indian women perceiving that the servants of the English did not know how to

dress it, made their bread for them, and taught them to do it for themselves. There was Indian corn enough in the country, and these new adventurers soon after shipped off 10,000 bushels for New England to purchase salt fish and other provisions."

In page 428, speaking of the mode of living in Virginia, he says, "The bread which the better sort of people use, is generally made of wheat, the poorer eat *pone*,* made of *opponne*, or Indian meal."

At page 441, speaking of the productions of Virginia, he says, "The Indians had pease, beans, and potatoes, before the English came among them; but the staff of their food was *their corn*, of which we have given a large description in the history of New England."

(To be Continued.)

* This name is still preserved in the South, where a "*pone bread*" means of *Indian corn* bread.

HORTICULTURE.

[From Loudon's (London) Gardener's Magazine.]

On the Systems of cropping Kitchen Gardens adopted by the best private and commercial gardeners; with an attempt to reduce them to fixed principles. By W. D. S.

The subject of cropping the ground in kitchen gardens embraces the preparation of the soil, the insertion of the seeds or plants, their after-culture, the gathering of the crop, and the system according to which one crop is made to succeed another. As the discussion of all these points, however, would involve the repetition of what is already well known to every gardener, the article now submitted to the reader, and for which his indulgence is entreated, is limited to what is properly called cropping, or the succession of crops. Crops in kitchen gardens, are put in the ground according to three distinct plans or systems, which may be termed *successional cropping*, *simultaneous cropping*, and *permanent cropping*.

Successional cropping is that in which the ground is wholly occupied with one crop at one time, to be succeeded by another crop, also wholly of one kind: for example, onions to be followed by winter turnips, or potatoes to be followed by borecole.

Simultaneous cropping, is that in which several crops are all coming forward in the ground at the same time: for example, onions, lettuce, and radishes, sown broadcast; or peas, potatoes, brocolo, and spinach, sown in rows.

Permanent cropping is where a crop remains on the ground several years; such as sea-kale, rhubarb, asparagus, strawberries, &c.

To these modes might be added, *mixed ligneous and herbaceous cropping*, such as growing herbaceous crops among gooseberries, currants, raspberries, and other fruit shrubs, and among fruit trees. The practice of growing culinary crops among fruit shrubs is, however, nearly exploded in the best gardens, on account of the injury done to the shrubs when they are young and small, by the roots and shade of the culinary crops, and of the injury done to the culinary crops when the shrubs are grown up, by the shade and confinement which they produce.

* The British called them "the Delawares," and the French, "Les Loups."

For the same reasons, cropping between trees is by no means desirable in small gardens, where the trees must necessarily be at no great distance from each other; but in the case of very large gardens, such as those of commercial gardeners, where trees are planted in close rows at 20, 30, or 40 yards apart, so as to shelter the ground, the cropping may be carried on in the spaces between rows of trees, on the principles which regulate successional, simultaneous, or permanent cropping, in ground where there are neither trees or shrubs.

The object to be attained by a system of cropping is that of procuring the greatest quantity and the best quality of the desired kind of produce, at the least possible expense of labor, time, and manure; and, in order that this object may be effectually obtained, there are certain principles which ought to be adopted as guides. The chief of these is to be derived from a knowledge of what specific benefit or injury every culinary plant does to the soil, with reference to any other culinary plant. It ought to be known whether particular plants injure the soil by exhausting it of particular principles; or whether, as has been lately conjectured by De Condolle, and, as some think, proved, the soil is rendered unfit for the growth of the same or any allied species, by excretions from the roots of plants; while the same excretions, acting in the way of manure, add to the fitness of the soil for the production of other species. The prevailing opinion, as every one knows, has long been, that plants exhaust the soil, generally, of vegetable food, particularly of that kind of food which is peculiar to the species growing on it for the time being. For example: both potatoes and onions exhaust the soil generally, while the potato deprives it of something which is necessary to insure the production of good crops of potatoes, and the onion of something which is necessary for the reproduction of large crops of onions. According to the theory of De Condolle, both crops exhaust the soil generally, and both render it unfit for the repetition of the particular kind of crop; but this injury according to his hypothesis, is not effected by depriving the soil of the particular kind of nutriment requisite for the particular kind of species; but by excreting into it substances peculiar to the species with which it has been cropped, which substances render it unfit for having these crops repeated. Both these theories, or rather, perhaps, hypotheses, are attended with some difficulty in the case of plants which remain a great many years on the same soil; as, for example, perennial-rooted herbaceous plants and trees. The difficulty, however, is got over in both systems: by the first, or old theory, the annual dropping and decay of the foliage is said to supply at once general nourishment and particular nourishment; and by the second, or new theory, the same dropping of the leaves, by the general nourishment which it supplies, is said to neutralize the particular excretions. It must be confessed that it is not very obvious how general nourishment, dropped on the surface of the soil, can neutralize the excrementitious matter deposited many feet beneath the surface; as in the case of long rooted herbaceous plants, like the saintfoin, lucerne, &c.; and deep rooting trees, such as the oak, &c. Nevertheless, we find that these plants will remain a longer period on the same

soil than others, the roots of which never go to any great depth beneath the surface; such as the fibrous-rooted grasses, the strawberry, &c., and the pine and fir tribe. We mention these things to show that, though it is not yet determined which is the true theory, yet that the fact of plants injuring or diminishing the fertility of the soil, both generally and particularly, does not admit of a doubt.

In the absence of principles founded on whichever of these hypotheses may be true, recourse is obliged to be had to rules drawn from the experience and observation of those who believe in the old theory. These rules, as adopted by the best gardeners, are as follows:

Crops of plants belonging to the same natural order or tribe, or to the natural order and tribe most nearly allied to them, should not follow each other. Thus, turnips should not follow any of the cabbage tribe, sea-kale, or horse-radish.

Plants which draw their nourishment chiefly from the surface of the soil should not follow each other, but should alternate with those which draw their nourishment in great part from the subsoil. Hence, carrots and beets should not follow each other; nor onions and potatoes.

Plants which draw a great deal of nourishment from the soil should succeed, or be succeeded by, plants which draw less nourishment. Hence, a crop grown for its fruit, such as the pea; or for its roots or bulbs, such as the potato or the onion, should be followed by such as are grown solely for their leaves, such as the common borecole, the celery, the lettuce, &c.

Plants which remain for several years on the soil, such as strawberries, rhubarb, asparagus, &c. should not be succeeded by other plants which remain a long time on the soil, but by crops of short duration; and the soil should be continued under such crops for as long a period as it remained under a permanent crop. Hence, in judiciously cropped gardens, the strawberry compartment is changed every three or four years, till it has gone the circuit of all the compartments; and asparagus beds, sea-kale, &c., are renewed on the same principles.

Plants, the produce of which is collected during summer, should be succeeded by those of which the produce is chiefly gathered in winter or spring. The object of this rule is, to prevent too active and exhausting crops from following each other in succession.

Plants in gardens are sometimes allowed to ripen their seeds; in which case two seed-bearing crops should not follow each other in succession.

These rules, and others of a like kind, apply generally to the three different systems for the succession of crops; and they are independent altogether of other rules or principles which may be drawn from the nature of the plants themselves; such as some requiring an extraordinary proportion of air, light, shade, moisture, &c.; or from the nature of the changes intended to be made on them by cultivation, such as blanching, succulency, magnitude, &c. We shall now notice the different systems separately.

Successional Cropping.—The plants best calculated for this mode of cropping are such as require, during almost every period of their growth, the fullest exposure to the light and air; and as remain, also, a considerable time in the soil: these

are, the turnip, the onion, the potato, the beet, the carrot, &c. If any of these crops are raised and brought forward under the shade of others, they will be materially injured both in quality and quantity; though, at the same time, while they are merely germinating, shade will not injure them. Hence, successional cropping may be carried on in breadths of 20 feet or 30 feet, between rows of tall-growing articles, without injury; which approximates this manner of cropping to the simultaneous mode, which, wherever the soil is rich, is by far the most profitable.

The simultaneous mode of Cropping is founded on the principles, that most plants, when germinating, and for some time afterwards, thrive best in the shade; and the tall-growing plants, which require to receive the light on each side, should be sown, or planted, at some distance from each other. Hence, tall-growing peas are sown in rows 10 feet or 12 feet apart; and between them are planted rows of the cabbage tribe; and, again, between these are sown rows of spinach, lettuce, or radishes, &c. Hence, also, beans are planted in the same rows with potatoes or with cabbages, (an old practice in the cottage gardens of Scotland;) and so on. The great object in this kind of cropping is, to have crops on the ground, in different stages of growth; so that, the moment the soil and the surface are released from one crop, another may be in an advanced state, and ready, as it were, to supply its place. For this purpose, whenever one crop is removed, its place ought to be instantly supplied by plants adapted for producing another crop of the proper nature to succeed it. For example, where rows of tall marrowfat peas have rows of broccoli between them, then, the moment the peas are removed, a trench for celery may be formed where each row of peas stood; and between the rows of broccoli, in the places where lettuces were produced early in the season, may be sown drills of winter spinach.

[For the Farmer and Gardener.]

A correspondent wishes to know how the requisite space for a given number of silk worms, as described in the various works on the culture of silk, is to be determined? It is stated for instance that during the 5th age, an ounce of eggs, producing 30,000 worms, will require 184 feet. Is this the superficial extent of the whole number of shelves combined—or is it the superficies of the apartment in which they are to be fed? In the former case, each worm will have less than one square inch allotted to it, which is perhaps less than the space it would cover, &c. &c.

Answer—It means the superficial extent of the shelves on which the worms are fed; but instead of computing the ounce of worms at 30,000, it should be estimated at 20,000, making allowances for deaths by sickness, casualties, &c.—*Editor Farmer and Gardener.*

THE CROPS—Since the late rains, the weather has been more favorable to vegetation than heretofore, and the wheat and rye have in consequence improved somewhat. Oats generally came up badly, owing to the ground being too wet when they were sowed; what are on the ground however, look healthy and flourishing.

Centreville Times.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	7 50	9 00
CORN, yellow.....	bushel	92	94
White,.....	"	90	96
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	10	13½
Louisiana 20a21—Alabama	"	—	—
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's.....	"	—	—
Super How. st. in good de'd	"	8 75	9 00
“ wagon price,.....	"	—	—
City Mills, super,.....	"	8 00	8 25
“ extra.....	"	8 50	9 00
Susquehanna,.....	"	9 00	—
Rye,.....	"	6 00	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,.....	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	—	3 00
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	12 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
“ water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 50	6 75
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	51
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	2 85	—
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"	—	none
TOBACCO, crop, common,.....	100lbs	2 50	3 00
“ brown and red,.....	"	3 50	5 00
“ fine red,.....	"	8 00	10 00
“ wrappry, suitable	"	—	—
for segars,.....	"	10 00	20 00
“ yellow and red,.....	"	8 00	10 00
“ good yellow,.....	"	8 00	12 00
“ fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	—	—
“ ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	—	—
WHEAT, white,.....	bushel.	1 60	1 70
Red, best foreign,.....	"	1 50	1 65
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls.....	gallon.	36	37
“ in hhds.....	"	35	do
“ wagon price,.....	"	—	—
WAGON FREIGHTS, to Pittsburgh,.....	100lbs	1 25	—
To Wheeling,.....	"	1 50	—
WOOL, Prime & Saxon Fleeces,.....	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	—	12½
Shoulders,..... do.....	"	—	10
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	8½	9
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,.....	"	16	20
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	7 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12½
CHOP RYE,.....	"	1 75	1 87½
EGGS,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,.....	barrel.	7 50	—
No. 2,.....	"	7 00	—
Herrings, salted, No. 1,.....	"	2 87	—
Mackerel, No. 1, —, —, —, No. 2	"	8 00	9 00
No. 3,.....	"	—	4 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	bound.	9	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgin. 2
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	½a	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... 2½
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,.... 1		Bank of the Valley,.... 2
Salisbury,.... 2 per ct. dis.		Branch at Romney,.... 2½
Cumberland,..... 3		Do. Charlestown,.... 2
Millington,..... do		Do. Leesburg,..... 2
DISTRICT.		Wheeling Banks,.... 4
Washington, } Banks, ½p.c.		Ohio Banks, generally 6a7
Georgetown, } Banks, ½p.c.		New Jersey Banks gen. 5
Alexandria, }		New York City,..... 1
PENNSYLVANIA.		New York State,.... 3a4
Philadelphia,..... ½a		Massachusetts,.... 3a3½
Chambersburg,..... 1		Connecticut,.... 3a3½
Gettysburg,..... do		New Hampshire,.... 3a3½
Pittsburg,..... 3½		Maine,..... 3a3½
York,..... 1		Rhode Island,.... 3a3½
Other Pennsylvania Bks. 4		North Carolina,.... 6
Delaware [under \$5].... 6		South Carolina,.... 8a10
Do. [over \$5]..... 2		Georgia,..... do
Michigan Banks,..... 10		New Orleans,..... 15
Canadian do..... 10		

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs. JOHN T. DURDING & CO. je 27 4t Fronting Grant and Ellicott sts

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,.....	\$100
Do. exclusive of the wheels, shafts and axle, 60	
For applying the machinery to a common cart 45	
For the machinery alone.....	40
Including the patent fee in each case. fe 28 3t	

HARVEST TOOLS, &c.

Grain and Grass SCYTHES of most approved stamps—GRASS SNEATHES, with Scythes and Hangings complete; GRAIN CRADLES, 4 to 8 fingers, with warrant, ed scythes attached; Dutch and American SICKLES; SCYTHE STONES and STRICKLES, for whetting Scythes, BRAMBLE SCYTHES and HOOKS, for cutting briars and bushes; Mowers' and Cradlers' Hammers, Hay and Grain RAKES, Steelspring HAY FORKS.

And constantly kept for sale, PLOUGHS of various patterns, Cultivators for corn and tobacco, Wheat Fans, common and patent CORN SHELLERS, Cylindrical and common STRAW CUTTERS, Drills Machines for planting corn, beans, turnip seeds, &c.

Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO. 4t June 6

HAZELWOOD FEMALE ACADEMY,

FIVE MILES N. W. OF BALTIMORE.

This institution, situated a short distance from the village of Franklin, in a highly eligible and healthy location, will be re-opened for the reception of pupils, under the care and superintendence of Mr. and Mrs. THOMPSON, on Monday, the 12th of June.

In addition to the efficient aid already procured, in the various departments of Literature, Mr. and Mrs. T. can promise the patrons of the Institution, a regular series of LECTURES from the following eminent gentlemen, viz. On Moral Philosophy, Francis Waters, D. D. Natural Philosophy, J. H. Miller, M. D. Professors in Chemistry & Botany, Ed. Foreman, M. D. Washington Medical College.

Exact Sciences, Richard Cotter, A. M. Professor of Mathematics in Boisseau Academy. Polite Literature, S. W. Roszel, M. D., Principal of Boisseau Academy.

BOARD OF VISITORS.

Rev. Dr. Thomas E. Bond David Stewart, esq Frank-
Rev. J. G. Morris, lin st.
Charles F. Mayer, esq. James Barroll, esq.
J. P. Kennedy, esq. Jonathan Meredith, esq.
John Prentiss, President of Nathaniel Williams, esq.
Baltimore College

TERMS.

The Scholastic year will be divided into two sessions of five months each.

Board and tuition in the English and Latin languages, Mathematics, Moral and Natural Philosophy, Chemistry, together with the advantages of all the Lectures, (per session) \$100

French, Spanish and Italian, (each)	10
Music, Vocal and Instrumental,	30
Drawing (with materials,)	12
Washing and Bedding (if required)	15
Stationary at store prices.	

The tuition fee will be due, and payable to the Institution, within the first four weeks of each session.

Any further information in reference to the above Institution, will be cheerfully given by Dr. ROSZEL, Boisseau Academy, St. Paul's street, or address Mr. and Mrs. Thompson, Hazelwood Academy, near Baltimore. June 10—13 4t

CONTENTS OF THIS NUMBER.

Thanks to a correspondent who communicated a description of Heathcoat's steam plough—notice of the Western Address Directory—do. of the discontinuance of the Silk Worm—do. of Spring Wheat—the Silk Culture in Virginia, estimates of profit—description of the Bellona Arsenal about to be converted into a cocoonery—notice of Buist's nursery—Professor Brown's essay on Indian Corn—interesting essay on the principles of gardening—query and answer relative to the space required for silk worms—the crops—advertisements—prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 10.

BALTIMORE, MD. JULY 4, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

American Farmer Establishment.

BALTIMORE: TUESDAY, JULY 4, 1837.

We are highly gratified to find by the advertisement of the Secretary of the *Board of Trustees of the Maryland Agricultural Society*, for the Eastern Shore, that at a late meeting it was unanimously resolved, that a *cattle show and fair* be held at the Town of Easton, E. S. Maryland, in the month of November, 1838, at which it is contemplated to offer premiums for the different varieties of crops, stock, implements and domestic manufactures. The notice to which we have alluded, will be found in another column, and we can truly say, we have complied with the request to insert it with feelings of pleasure, which we but seldom indulge in. It is to us the harbinger of better days to the agriculturists of Maryland, and we sincerely hope that the spirit which prompted the adoption of the resolution may find a generous and hearty response in the bosom of every man engaged in the business of husbandry, not only on our Eastern peninsula, but throughout our state and country.

Of the utility and beneficial influence of such exhibitions we have never had any doubt; they serve to give birth to wholesome ambition and a generous spirit of rivalry, alike serviceable to proprietors and beasts. We are aware that there are many farmers on the eastern shore who have for years paid great attention to the improvement of their stock, but there are also a numerous class who have been content to plod on in the good old way of ancient days—to the latter these shows will be especially serviceable, for the fine display of animals of all kinds, which will be periodically made, will inspire them with the laudable feeling of emulation—that once implanted in their breasts, *improvement* must follow; for what man, possessing the proper pride of one, could sit still and see his neighbor engaged in exertions which tend to elevate his standing in society, and better his fortune without being roused to action? All

that is wanting to place the spirit of agricultural improvement on a solid basis, is *example*—intelligent and successful example, and that we sincerely hope and believe is about to be speedily realized.

A friend in Delaware, who, a few years since, with a public spirit worthy of the gallant little state in which he lives, purchased several Durham Cattle, with a view of improving his own stock, and of affording an opportunity to others to do the same with theirs, writes us thus, under date of the 24th of June:

“My faith in the stock still remains unshaken, although I have met with but little encouragement; the demand, however, I find to gradually increase as they prove their superior qualities.

“Some of my young cows are coming out very fine, several of them giving from 25 to 30 qts. daily.”

On the subject of the *crops*, he says—

“Our wheat crop in this county [New Castle,] has improved astonishingly: the *corn, oats and grass*, never were finer; but in the lower part of this state, there will be another *failure* of wheat. *They must get to the silk.*”

It is certainly a most wise conclusion to which our friend and correspondent has arrived; for surely if the wheat growers should be compelled to abandon its culture, there is nothing within the whole range of agricultural employment, to which they could resort that is so well calculated to reward their labor so generously as the silk culture. The soil and climate of Delaware, as well as those of the states of New-Jersey, Maryland, Virginia, North and South Carolina, and indeed, nearly all the South and Western States, are particularly adapted to the growing of the mulberry and feeding of the worms.

THE CROPS.

In almost every quarter whence we have information, we are gratified to learn that the prospect for good crops are excellent. The wheat and rye fields with few exceptions have passed the ordeals of freezing out, and the fly, have headed with every appearance of making largely above average crops. *Oats*, though in many instances low for the period of the season, look healthy and give assurance of heavy yields. Corn, except where planted in low grounds, bid fair to crown

the husbandman with a plentiful harvest. Indeed, so far as we can judge, from the intelligence we receive in all directions, there have not been as much oats and corn sown and planted for many years; it is therefore, fair to conclude, from the lights before us, that there will be more of each of these grains raised than have been for twenty years, unless the season should turn out more unpropitious than we have any reason to anticipate.

A writer in the Charleston Mercury, who signs himself “*An Orangeburg planter*,” states that the crops the present season is four weeks more backward than for the last five years, and particularly the cotton crops. He concludes from present appearance, that let the remainder of the season be ever so good, that not more than two-thirds of a crop can be made. The corn crop, however, bids fair for “a great harvest.”

SEWING SILK IN VIRGINIA.

We copy the following paragraph from the Richmond Enquirer, with feelings of unmingled pleasure, because it gives us the assurance that a spirit is abroad in that ancient and venerated commonwealth, that will ere long produce a result as honorable to her, as it will be productive of national good. With a climate and soil such as Virginia is blessed withal, we see no reason why, in ten years, if enterprise and industry shall be preserved in keeping with her natural advantages, that her imports of silk shall not amount to as much as any other staple product now raised by her. It is a fact which cannot be too strongly impressed upon her people, that in the culture of silk the services of her slave children, as the gatherers of the mulberry foliage, will be just as valuable, if not more so, than that of able bodied hands.

We are pleased to find such men as Judge *Fields* engaged in giving eclat to the labors of his fair country women, as the countenance of such men, in new enterprises, impart to them a strength, vigor, and freshness, which cannot fail to ensure their ultimate success; and while we say this much, we would do discredit to our own sense of the value of Mrs. Shackleford's labors, were we not to declare, that, in our estimation, she deserves to be ranked with those mothers whose fame

forms the brightest niche in the history of Rome in her best days.

The experiment!—Another resource opening!

We have been favored by Judge Field of the General Court, with some beautiful specimens of sewing silk, which have been fabricated by Mrs. Shackelford, of Culpeper county. The raw silk was raised, spun into thread, and dyed with a variety of colours, by herself, and her own laborers, without the assistance of any foreign artist. The manufactured silk sells for \$11 a pound—and we are happy to understand, that she is enlarging the extent of her operations, by building cocooneries, planting the Italian and Chinese mulberries, &c. &c. We honor this enterprising spirit. We thank Mrs. S. for the example she is setting to the matrons of Virginia.

WORK FOR JULY.

We take up our pen to point to the appropriate labors of this month, the present, with far different feelings than those that filled our breast the last year. Then the prospects of the agriculturist were gloomy and foreboding—now on every side—in every direction—in every department of husbandry, hopes bright and cheering dawn upon the tillers of the earth, and beckon them to be thankful to the Great Author of all blessings for the bounties he has been pleased to vouchsafe—for the fruitfulness it has been His good pleasure to shower upon the earth. If we look through the entire range of agricultural products, in each and all, we behold the same indications of plentiful harvests. Surely then, the aspirations of gratitude should be poured out with overflowing hearts; and while we should be prodigal in our praises to the Source of such blessings, let us remember that among the evidences of a rightful state of feelings, there are none more pleasing than those which owe their derivation to love and charity—those two chief ingredients in the composition of human goodness. If then we would desire a continuance of present and prospective enjoyments, we must temper all our conduct so as to deserve it, and improve those resources placed in our hands for the proper development and increase of their several capacities of production. There is no land whatever may have been its former treatment, how much it may have been reduced, but may be restored to fertility by judicious and systematic treatment, and while interest and duty both conspire to induce us to avail ourselves of the means in our power to produce so desirable a result, the responsibility we owe to society to set an example worthy of being followed, should be imperative, and as a law with us. With these remarks, which appeared to us called for by the occasion, we shall proceed to designate

the labors necessary to be performed this month.

ON THE FARM.

Corn—Let your corn be kept constantly free from weeds, and the earth so stirred about the plants, as to be always in a state not only to admit their free and unrestricted growth, but to attract and absorb whatever dews may fall, or moisture existing in the atmosphere. However good soils may be, however congenial to the growth of this particular grain, exact and cleanly cultivation is indispensably necessary to its successful culture—you may rest assured, that it is just as essential as manure itself. In the working of the corn we are not the advocate of that plan which would raise a mound or hill around the plants—on the contrary we believe that they will grow faster, and yield more, where no hill whatever is raised. Nor are we the advocate of frequent ploughings: we believe that more than two ploughings should never be given to the corn crop,—that one at the proper time is enough—and that whether one or two, they should be at the incipient period of the growth of the plant. All ploughings after the lateral roots have pushed out to any considerable distance, serve only to cut and lacerate those roots, and deprive the stalk and its fruit of its wonted supplies of nourishment, and not unfrequently produce that much dreaded *firing*, as the planters term it, which so despoils the crop of its rightful fruitfulness. After the corn has reached two feet in height, the cultivator, harrow and hoe, should alone be used. By the judicious use of these implements, all the good to be effected by proper culture, may be secured, without hazarding the fruitfulness of the crop by cutting off the sources of feeding, and thereby diminishing the chances of abundant production.

Potatoes—Though it is *late* to put in your fall crop, by proper preparation of the soil, manuring and after treatment, a saving crop may yet be realized; those who have their potatoes already up, must keep them clean and the earth in that condition which offers no impediment to healthful vegetation—taking care at all times to keep a small *furrow*, flat at the top, around the vines, to act in the two-fold capacity of a recipient of rain and moisture, and to afford room wherein the bulbs may grow without difficulty.

The Harvest—Already, farther south, this interesting labor has been begun, and we trust and believe, under auspices the most promising. With us, in ten days, or two or three weeks, wheat, rye and oats will be ready for a similar operation,

and it may not be amiss to remind the farmer, that should *rust* or *blight* fall upon the *stems* of either wheat or rye,—and from the present state of the weather there is danger to be apprehended—both grains should be cut, though the kernels may still be in milk; for no possible nourishment can be expected to be drawn from the stalks of grain after their juices have been indurated by such agency.

This too is the month for the cutting and curing of hay, and upon this subject we propose to have a word. It is this—the sooner the grass is put into cocks, the better, as it is less exposed to the injurious effects of the vicissitudes of weather in that form than when in swarth, and cures into hay to much greater advantage, retaining a much larger amount of nutritive matter, than when dried in the old way. In storing it, the judicious farmer will not fail to sprinkle a small portion of salt over each layer of hay, because in so doing, he will greatly add to its quality, and render it the more grateful to his stock.

Turnips—Those who desire large crops of turnips, with a view of feeding stock, should put them in as early after the 15th of this month as possible. The sowing of those intended for the table may be delayed a week or two,—indeed any time during the month will answer; but we admonish all against delaying sowing their seed until, as the old custom would have it, the 20th of August. Every prudent man should allow himself time to meet all contingencies that may occur.

Buckwheat—This grain may be put in any time between this and the 10th of the month, with a certainty of its maturing; but the sooner the labor is performed the better,—and surely no one who likes to see his family enjoying a good winter's breakfast—surely no husband or father, whose happiness is identified with that of his wife and children, will omit to secure a full supply of the material of those delectable cakes, which give so exquisite a zest to the breakfast table. But we will have a word as to the straw; for while it is our first object to secure comfort to the domestic circle of the homestead, it is our desire not to forget the inmates of the barn-yard. Therefore, let us admonish you to get your grain out early—as early as possible after your buckwheat is harvested, and carefully put away your *straw* to be fed to your milch-cows as hay. As we have said before, we will here repeat it—it is just as valuable as so much timothy or clover for them. Custom, hitherto, with most farmers, has consigned it to the dung-heap or cow-yard, as a

thing only fit to be trampled under feet; but enlightened economy would allot it a much higher destiny. When cured with care, and kept from the weather, it makes as good and wholesome provender, as ever went into the manger of cattle.

Millet—Up to the 15th of this month, this grain may be sown. In six weeks from the day of its being put into the earth, if sown on good warm, light soil, it will be fit for cutting for hay. As a *cleanser* of grounds intended for *timothy*, there is nothing superior to it. As soon as the millet is off, the stubble should be well harrowed, the timothy seed sown, a light harrow passed over it, and then the ground should be rolled.

Cabbages—Those who would desire to keep their cows well to their milk through the winter, should put in at least one or two acres of this productive vegetable—in good ground they will yield 40 tons to the acre, and we need not say, that that quantity of green food in mid-winter would be most acceptable to your milch cows, and tend greatly to increase the quantity of milk and butter yielded by them.

ROT IN COTTON.

We copied into our paper of the 23d ult., a short paragraph from the *Southern Times*, containing the plan recommended by Dr. *Harden*, to prevent the rot in cotton. This publication falling under the notice of a venerable citizen of Philadelphia, he took the trouble to copy from the files of the *Aurora*, a communication which he wrote and had published in that paper many years ago. In forwarding us this communication, the writer observes:

"The reading in your paper of May 23d, some observations on the "*Rot*," that cotton is subject to, after blooming, recalls to my memory an article I had published on that subject, and as it appeared at the time of its publication over the signature of "*A Manufacturer*," it may have been overlooked by those immediately connected with agriculture. Perhaps experiment has already determined the question, and proved that the remedies suggested in the *Aurora*, have no control over the disease in Cotton. The article has been copied from the *Aurora* for your inspection, and to be employed as you think most useful."

We are very sensibly impressed with the obligation of gratitude which the attention of our correspondent has placed us under, and deeming that the best employment we can make of his communication is, to lay it before our readers, we have done so in this number, and respectfully bespeak for it an attentive perusal. Knowing the disinterested

source whence it emanated, and duly appreciating the philanthropic motives which dictated it, we value it the more, and feel certain that it will be met in the same spirit among the cotton growers of the south.

[Copied for the Farmer & Gardener, from the *Aurora* of October 28, 1818.]

Mr. Duane :—In your paper of the 23d inst., is a letter from *George M. Troup*, describing the disease in the cotton plant, called the *Rot*, with an account of its rapid and mischievous effects, on this important article of our agriculture.

Mr. Troup, entertaining the hope, that a change of seed may produce some favourable results, has with promptitude taken measures to ascertain this by experiment; besides the object it has in view, it gives a chance of improving the staple or furnishing a plant possessing properties superior to that now in use; Mr. Troup merits the gratitude of his fellow-citizens for these efforts to correct an evil of great magnitude.

The cultivation of cotton, though it has made great progress, is still very recent in our country; and there must remain many improvements in the manner of cultivating unknown to us, besides much knowledge yet to be acquired. The plough and horse-hoe will be made to perform three-fourths of the labor, now done by the hand hoe, and in proportion as horse labor is cheaper than manual labor, it may enable the planter to meet a reduction of price, which inevitably must be the consequence of so many nations turning their attention to this important plant.

Though these are interesting considerations, the present object is the *rot*, and by comparing the economy of one vegetable with another, we may infer from certain coinciding appearances, what probabilities there are of averting the disease of the one, in the same manner as they are prevented in the other.

✦ In no part of Europe, have the operations of agriculture been practised with more care than in Scotland; for in the face of a most changeable and stormy climate, in lands of ordinary quality, crops are raised surpassing in quality those met with in more favored climes. Preceding 1775 or 1785, the crops of wheat in that country were very much injured by the disease called "*Smut*"—there it was called "*Black*"—this disease made its appearance on the ear at the time the grain should have formed, and was attributed to various causes, the arguing about which has been ended by a process that keeps off the disease; a process both cheap and effectual, which shall now be submitted to the cultivators of cotton, with the earnest desire, that they may give it a fair trial and careful experiment.

This disease in the wheat assumed two appearances—in one, the ear was formed of grains, the bran or skin of which was perfect, but filled with a matter as black as stone coal soot—the other consisted of ears, the skin or bran of which burst, and instead of a white substance, a sooty matter came out during the operations of reaping and threshing, spoiling the good wheat; much of the former passed through the wind fan along with the wheat, and required to be got out by washing, which imposing the expense of kiln drying, and there was a loss sustained by the millers in what

passed in smut, in place of good wheat, which was a serious loss—on what is to the Lothians of Scotland, the same as cotton is to Carolina and Georgia.

The process (in 1790) was to put salt into common cold water, until it would dissolve no more—the rule with some farmers was to dissolve the salt in water until the brine became sufficiently strong to float an egg. Some farmers put the seed wheat in the brine, and skimmed off the light grains and put them aside—the wheat was then taken out on a sieve that had been put under it in the tub. After draining a short time it was laid on the barn floor, air-slacked lime was sifted over it, and the grain immediately carried to the field and sown; attention was had to "*pickling*," as it was called, as more than would be sown on the same day; some ill consequence was said to result from pickling long before sowing, but it is not now recollected what this was. Some farmers prepared the brine as already stated, laid the dry wheat on the barn floor, and sprinkled brine over it, and turning the wheat backwards and forwards, until it was perfectly wet, then dried it with lime, as in the preceding case. Another process was to save a sufficient quantity of chamber ley; but this was done some weeks before it was to be used, so that it got into a state of fermentation, and emitted abundance of volatile alkali when used—the wheat was treated with this ley in one or other of the modes already stated, and dried with lime, as when the salt brine was employed; all these methods effectually prevented the smut: sometimes by way of experiment, a little spot would be sown with part of the wheat without pickling, and in seven cases out of ten the smut made its appearance: the pickling is now the common practice with all who sow wheat in that country.

In one case, the wheat grows to all appearance in a healthy state, until it arrives at the period of filling, then this blight shews itself. In the other, the cotton thrives up till it begins to bowl: there is certainly sufficient similarity in the periods at which the respective diseases appear, to justify an inference that there may also exist some in the remedy.

Along with these observations, the agriculturists have the best wishes of their friend,

A MANUFACTURER.

Oct. 26, 1818.

P. S. The experiments should not be confined to using the brine and ley pickles; employ diluted nitric, muriatic, and sulphuric acids; also, vinegar, solutions of pot ash, (common ley) &c. &c. Indeed, it would be prudent in Georgia and South Carolina to establish State farms and botanic gardens, where new plants and improved processes would be brought forward to supply the losses that will result from the exertions making to augment the cultivation of cotton in Brazil, Bengal, &c. &c.

Raising Potatoes.—An agricultural paper says, that if the eyes of potatoes are soaked in milk for three days before planting, they will produce finer and more mealy potatoes than they can grow in any other way, and more of them. Three years ago, a farmer of Pennsylvania, upon a bet, grew 620 bushels of potatoes off of one acre of land, by this simple process.—*Wheeling Gazette*.

INDIAN CORN.

AN ESSAY ON INDIAN CORN

DELIVERED BY

PETER A. BROWNE, Esq. L. L. D.

Professor of Geology and Mineralogy in Lafayette College, Pa. Professor of Geology in the Cabinet of Natural Science in Montgomery county; member of the Geological Society of Pennsylvania; and corresponding member of the Cabinet of Natural Science of Chester county, Pennsylvania, read before the latter Society, April 22, 1837.

(Continued.)

What are the inferences to be fairly adduced from this body of concurring testimony? It must be recollected that it emanates from many persons of different habits and propensities, and belonging to different nations, civilized and savage; among whom there could have existed no connivance or collusion: it has been made public at different periods of time, and under various circumstances; and relates to different parts of a widely extended territory, and it is therefore not obnoxious to the objection of having been an ancient error originally fallen into by accident, and unintentionally adhered to and copied by subsequent writers. Standing as it does upon independent ground, each piece of testimony corroborates and strengthens the others; and the whole taken together, establishes in a way that defies refutation that the Indian corn claims this hemisphere for the place of its nativity. Many of the articles to which I have referred, representing the Indian corn to be a plant new in Europe, were published at a time when such an error could not have escaped detection. The discovery of a new world was the great lion or wonder of that day: the accounts given by travellers of an immense country which had been until that period not only unknown, but which many of the learned supposed did not, and could not exist;—of its singular inhabitants, and of its various animal and vegetable productions, was sought for and read with avidity by princes and subjects, by scholars and laymen, and altho' the Indian Corn was every where asserted to be a native of the Americas and to be unknown in the rest of the world, yet not a solitary individual was found to correct the error if it was one, or throw the slightest discredit on the assertion.—This task was reserved for more modern times, and will not again, I hope, find credence with any one who seeks only for the truth. As to the objection that no one has stated that he has seen the Indian Corn growing wild and spontaneously in America, I cannot perceive that there is much weight in it, especially as no one pretends to have seen it growing wild or spontaneously in any other part of the world. By the Indians it was doubtless found growing wild, but at the time that this country was visited by Europeans it was every where cultivated. I am informed by a gentleman residing in the state of Kentucky that there was some thirty or forty years since a tradition among the western Indians that the seeds of the plants they cultivated were presented by the Great Spirit: that on a certain occasion the Great Spirit had descended to this earth in the form of a beautiful squaw: that where she first touched the ground

with her feet there sprang up the Indian Corn; where she placed her right hand, grew the bean, and where she put her left hand pumpkins and squashes, and where she seated herself on the ground grew tobacco.

In the United States this plant has always gone by the name of *Indian Corn*, (except where *par excellence* it is designated by the name of '*Corn*,') and there is no doubt but that this name was given to it by the earliest visitors, whom, history tells us, called this country "the West Indies."

Indian names for many preparations of Indian Corn have descended to us: '*samp*' in the North, and '*hommony*' in the South, are names for a dish of corn coarsely broken and boiled like rice.—"*Sagamenté*," is the whole grain with the hull taken off and boiled in like manner. "*Sack-atash*," among the northern aborigines was the name of a dish composed of unripe corn and beans boiled together.

Is not the manner in which the *Zea* is described by the early botanical writers evidence that the *Zea mays* was then unknown, and that it has since been admitted into its class and order? The Stem is ranged under the *Culm*, which originally meant a *hollow* stem-like straw.

In describing the female flowers, the conical process upon which the seeds are set, is, (for want of an appropriate term, called a *spike*), whereas a spike is an inflorescence, in which the flowers are sessile, (sitting down,) placed immediately on the *main stem*, without the foot-stalk, like the mullein. This description answers well enough for the *male*, but not at all for the *female* flowers of the Indian corn, which are not placed on the stem at all, but upon a conical process set upon the same.

The covering of this conical process and the seed had no terms among these early botanists by which it could be described. It was ranged under the part of "*Calyx*," or cup of the flower, but comes naturally under no definition of that I have ever seen in a botanical work.

In fact, so little are the classes and orders fitted for the reception of this plant, that one botanical writer (Mrs. Lincoln,) after arranging it under the 19th class *monœcia*, and order *Triandria*, mentions it again under the order *Dignia*; (the grasses).—"This plant," (she says p. 126,) "botanically called *Zea Mays*, although of the natural family of the grasses, having a culm-like stalk, and other distinguishing characteristics of grass like plants, is yet placed in the class *monœcia*."

5. What is the general opinion of the learned?

In the first volume of the *Encyclopedia of Geography*, by Murray, p. 175, is the following:

"In the west of Europe, maize has the same range of climate as the vine, but reaches further north, on the east side. In its *native American* soil, it forms the chief article of food, from the River La Plate to the Lakes of Canada, requiring a short but warm season of four months; it is well suited to the climate of the new world up to the lat. of 45°."

*In one of the Counties of Pennsylvania a man was indicted for stealing so many bushels of "*Corn*," and upon the exception being taken by Counsel that this was not a perfect description of Indian Corn, it was over-ruled by the Court.

In 1748, Montesquieu wrote his *Espris des Loix*. In speaking of the soil of America, he says, "The cause of there being so many savage nations in America, is the fertility of the earth, which *SPONTANEOUSLY* produces many fruits capable of furnishing them nourishment. If the women cultivate a spot of land round their cabins, the *MAIZE* grows up presently."

One of the varieties of corn used in the United States still bears the name of the "*King Philip Corn*," from Philip, king of the Wampanoags, who in 1674 made war with the settlers of Massachusetts.—[See Adams' History of New England, p. 118.]

See also an essay of Col. Taylor of Virginia on Agriculture; the March number, of the *Cultivator*, edited by J. Buel, of Albany, New York; an essay of S. W. Pomeroy, of Brighton, Massachusetts, and published December 19, 1819, in the Massachusetts Agricultural Repository; Smith's History of Virginia; and Governor Drayton's View of the Carolinas; in all of which the Indian corn is considered as a native of America.

6. Are there any recent discoveries that will shed any light upon this subject? I have heard of some which I will briefly state. The Messieurs. Peales of Philadelphia, always anxious to enrich their museum, a few years since procured from Peru two very interesting collections of Inca mummies. These mummies, consisting of a man, a woman, and a child, were dug out of the earth in the desert of Atacama, in the valley of the same name, capital of the above province of South America. This place was a celebrated deposit of the dead bodies of the ancient Incas.

The Peruvians entertained the idea, that, after death, they were destined to cross the sea to the west, and hence, when they died in the neighboring mountains, their bodies were brought down into this valley to be interred. They also believed that they would require some of the good things of this life to support them on their journey to the "undiscovered country," they therefore enclosed with the bodies portions of provisions.

After the mummies in question were brought to Philadelphia, they were unwrapped, and inside of the envelope were found maté, (an herb) mixed with lime, several small bags of *Indian corn meal*, and one ear of *Indian corn*.*

Now we know, from history, that Pizarro, in order to facilitate the conversion of the natives, in 1555, forbid all interments in Arica, and from that period, this valley has remained a desert, we have therefore the positive proof that at least 382 years ago, (and how much longer we cannot tell,) Indian corn was the food of the Peruvians.

In the 2d part of first volume of the *Transactions of the Geological Society of Pennsylvania*, page 145, in a letter from J. C. Johnson, M. D. of Louisville, Kentucky, to R. Harlan, M. D. of Philadelphia, dated the 6th of July, wherein the writer says: "I send you by Mr. Frazer, the *ROSILIZED CORN*, of which I spoke when I last saw you. It is found in the alluvial bank of the Ohio river, about twenty-five miles below Wheeling, both above and below the mouth of Fish Creek, and extending up the creek some

*A cast of this ear is deposited in the Academy of Natural Science of Chester County.

"distance, and four or five miles on the Ohio; it may extend farther, but shows itself only that distance by the wasting of the river against the bank.

"The stratum is generally from eight to ten inches thick, and from five to six feet below the surface, and contains nothing but the corn grains closely impacted together with the black dust, which you perceive among the corn, has ever been found with the grains. The same stratum has been met with in places distant from this in digging below the surface. This is all that I could learn relative to this interesting and unaccountable deposition. Why or how did it get from the cob.

"It certainly must have been charred, or it would not have been thus preserved. It could not have been reduced to this black cinder, like the loaves of bread and grains of different kinds found at Pompeii; or rather it could not have resulted from a like cause. I do believe, that if all the corn raised on the Ohio, and all its tributaries, above this point was collected in one mass, it would not amount to one-tenth of this deposition."

If the article alluded to in the above letter is really Indian corn, whether in a fossilized or any other state, it having been found where described, is an unanswerable argument in favor of the position that has been assumed. The fact is that so much does it resemble grains of Indian corn, that there is scarcely an individual to whom it is presented who does not instantly pronounce that it is the *Zea mays*; and yet when we take into consideration the immense quantity that is said to be discovered, all belief in it seems to waver.—No idea can be formed of an ancient population of this continent dense enough to have cultivated and stored away such an inexhaustible harvest;—and against the supposition of its having been the spontaneous production of the earth, the large size of the grain is a powerful argument. There is no doubt but that the maize was a diminutive grain in its natural state. Dr. Darlington is of opinion that it did not much exceed in size the grains of wheat. The grains upon the ear found inside of the envelope of the Peruvian mummy, are quite small; and the corn raised even at the present day in Peru is far from being of a large grain.

If, for the sake of further enquiry, we were to admit that it was corn, it is not correct to call it fossilized corn, in the proper sense of that word, unless bearing the obvious and characteristic marks of vegetable organization, it has undergone one of the three following processes, viz. of *intrusion* of the mineral matter at present composing it, into the interstices and vacuities of the original organized body, or, second, *substitution* of the present mineral matter into the spaces which have been produced by the partial removal of the original organic substance; or, third and lastly, by *impregnation* and *consolidation* of the chemically altered organic matter itself. Now it is obvious that in this corn (if corn it is), there has been no *intrusion* nor *substitution* of any mineral matter, but that a chemical change has taken place similar to that which transforms wood into jet; and if therefore it is correct to rank jet among fossils, this may properly enough be denominated fossilized corn.

II. Where is it now cultivated?

Indian Corn is now cultivated extensively not only in America, but throughout a great part of Asia and Africa, and also in several countries of the south of Europe, as in Spain and Italy; and in many of the Provinces of France, it is said to form almost exclusively the sustenance of the inhabitants. [Lieber's Enc. Am. tit. Maize.]

Arthur Young, in his travels through France and Spain, observes, that the regions of Maize exhibited plenty and affluence, compared with those where other crops are cultivated.

In speaking of this grain or gigantic grass, Johnson says, it is propagated in England as a curiosity. But it would appear from a pamphlet published in 1828,* by Mr. Cobbett, entitled a treatise on Cobbett's Corn, that he attempted to raise it in England, and in Reese's Cyclopedia, tit. Maize, an account is given of some experiments in raising this grain in Ireland by Richard Buckeley. Other experiments are there also alluded to, made respectively by M. Duhamel and M. Amiens, but the place where they were made is not mentioned.

It is calculated† that in England there are about 34,000,000 acres in oats and beans, and between 2 and 3,000,000 in barley. They raise about three hundred thousand cwt. of hops, and make about four millions of gallons of cider annually.

In Scotland, there are about five millions of acres under regular cultivation, of which not more than one million eight hundred thousand are under grain; of which, one hundred and forty thousand produce wheat. Oats is their staple, and the food of its rural population, which they raise on one million two hundred and sixty thousand acres. Barley occupies two hundred and eighty thousand acres, being raised principally for distillation.

In Ireland they raise wheat and barley, but their main objects are oats and potatoes, of the latter as the staple food of a considerable body of the people.

They raise annually about one million five hundred thousand pounds worth of flax.

(To be Continued.)

* I have not been able to get a sight of this pamphlet, but have a specimen of the corn.

† See the Encyclopedia of Geography, title Productive Industry.

WASHING SHEEP.

In order to have wool command a good price in the market, or be in the best state for manufacture in the family of the farmer, it is indispensable that it be well washed; and we have reason to believe that the process is but very imperfectly performed in proportion to its importance. In the first place, sheep are usually washed too early in the season. The weather should be warm, and the water should have time to be freed from its winter chill, before the washing of sheep is undertaken. Sheep now rarely lose their wool in the spring; a reason that once was the most successfully urged for early washing, and no loss from this cause rises from waiting. The health of the sheep, and the comfort of the washer, both demand that regard should be had to the tempera-

ture of the weather and the water, before the process is undertaken. Sufficient attention is not paid to tagging the sheep, or freeing them from hardened and accumulated dirt, before washing. Neglect here will always cause a serious loss, by injuring the quality as well as lessening the quantity fit for market.

There is great deficiency in another respect which should be corrected. Sheep are frequently washed, or rather wet, as if the process was one intended for a frolic, not for use. Only get them into the water, and in the opinion of many, the grand object is accomplished. Now sheep should be washed clean; if they are not, they may as well be let alone, and the time and trouble of wetting them saved. Soap should be used when necessary, and the whole business should be conducted with care and attention. No more should be penned at once than can be washed well and thoroughly within a reasonable time; to shut them up, and keep them eight or ten hours without food is a needless piece of cruelty.

It is the practice of many to drive their sheep some two or three miles to a lake or river for washing, but the practice is a bad one, and generally entirely needless. By driving them so far they frequently tire out, and always get more or less dust and dirt fastened to their wet wool.—There are but few farms, certainly but few neighborhoods, in which clear running brooks cannot be found, and with these, places for washing are easily made. A tub four or five feet in depth and as many in diameter, such as is frequently used by the farmer for holding rain water, a trough or spout large enough to convey a suitable quantity of water to the tub, and a pen for yarding the sheep, are all that is required; and these can in most cases be provided in a few hours. At such a tub two men can wash easily, without being seriously wet themselves, and with an entire command of the sheep at all times. Some prefer vats of a suitable depth; but the fact that vats are as expensive as tubs, that they can be used for nothing else, while tubs, when not wanted here, are always useful elsewhere; would seem to render tubs preferable. This is, however, of little consequence compared with the benefits of washing sheep at home; a system which, when once adopted by the farmer, will be rarely exchanged for the laborious one of driving abroad. This method of washing requires but little water; just enough to flow off freely, washing away the dirt and other impurities, either over a depressed part of the margin of the tub, or through a suitable sized opening near the bottom.

We are also convinced that a majority of our farmers shear their sheep too soon after washing. If sheep are washed as they should be to render the wool clean, much of the natural yolk or oil of the wool, a substance that contributes much to its smoothness and ease of working, is taken away. If sheared too soon after washing, the wool is destitute of this principle, and is apt to be harsh or tender, an evil that the greasing given by the manufacturer but imperfectly remedies. Sheep should be allowed to run several days after their wool is dry, always being careful to confine them to clean pastures, and the benefit of the delay will be felt not only in the superior softness and quality of the fleece, but in the greater weight and consequent profit of sale.—*Genesee Farmer.*

[From the Easton Gazette.]

CATTLE SHOW.

At a meeting of the Board of the Trustees of the Maryland Agricultural Society for the Eastern Shore, held on the 1st of June, on motion of Gov. Stevens, it was unanimously Resolved,

That there be a cattle show and Fair at Easton, Talbot county, in the month of November, 1838; at which premiums will be offered for the different varieties of Crops, Stock, Implements and Domestic Manufactures.

By order of the Board,

T. TILGHMAN, Secretary.

June 24, 1837.

Editors throughout the state, friendly to the promotion of Agriculture, are requested to publish the above notice.

Extract of a letter to the Southern Agriculturist.

I have succeeded in raising, and keeping through the winter, as fine Irish potatoes as I ever saw in the northern States. And I have come to the conclusion, that no man in the southern States need spend a single dollar in the purchase of southern potatoes, except occasionally for seed. For even when they are most successfully produced, it is found best to exchange seed every two or three years.

The potato requires a moist, cool, loose soil.—The common practice in the south, is to plant in ridges: and we take no care to protect the plant from our scorching sun. The consequence is, that in hot dry weather, the plant is wilted, and cannot therefore properly perform its office, in preparing the matter to be deposited in the tubes below the soil. The consequence of this is, that in summer, we eat imperfect or diseased potatoes; and we fail to keep them in winter for the very same reason that we would fail in keeping an imperfect or diseased apple, or ear of corn.

I have attempted to avoid these consequences. Ridges are necessary in England and Ireland, (both moist climates,) for the purpose of drainage. Our climate being hot and dry, requires the opposite practice. I plant in trenches, 12 or 18 inches deep, according to soil; and put stable manure at the bottom, on which the potatoes are placed. The trenches are then filled with leaves, straw, and shucks, and these covered lightly with earth, taking care to leave the ground higher between the rows. When the potatoes are 6 or 8 inches high, the whole surface of the ground is carefully covered with leaves; leaving of course the tops of the stalks out. In this way, no heat of the summer wilts the leaves. They continue fresh and green. Blossoms are produced in profusion, followed by seed which comes to full maturity. The tubers are large, dry, and of fine flavor; and being dug after the vines are completely dead, (about the middle of August) are kept without trouble all winter, either in barrels or spread out on the cellar floor. My first attempt gave me a product at the rate of upwards of 300 bushels to the acre: and now, the last of February, I see no difference between them and the best northern potatoes, when brought upon the table.

Very respectfully,

JAMES CAMAK.

Athens, Ga. Feb. 27, 1837.

VINEGAR TREE—We have the molasses or sugar tree among us in the shape of the rock or sugar maple, which many of our farmers make use of to good advantage, and many more might, did they know how to improve the good things which Providence has supplied them with. In addition to this, we have, undoubtedly, a good *vinegar tree*, though we have never tried the experiment in order to ascertain the facts, and the time may now, perhaps, be past for doing it this year. While perusing the last number of Silliman's Journal of Science, we were struck by the following remark from Professor F. Emmet, while speaking of the properties of Formic acid: "Being lately very much struck with the odor peculiar to the red oak, I applied my lips closely to the transverse section of some fresh cut logs, and to my astonishment, sucked up with ease a pure and grateful vinegar, sharp to the taste, and so like the best specimens of the acetic acid, that distillation could not have improved its qualities. The tree was full grown and sound, and felled in the month of February, about the 6th, and the wood examined as soon as cut. The acetic acid existed more abundantly in the red portion next to the heart."

Now, it is well known that the sap in the red oak is abundant, perhaps as much so as in the maple. Would it not, if tapped at the time the maple is, yield a quantity of pure vinegar sufficiently large to supply a family for a considerable part, or for the whole year? We wish some one who has an opportunity would try the experiment, and let us know the result. The acetic acid is much used in the arts, and if it can be obtained in this simple way, of a good quality, it will be a discovery of considerable importance.—*Maine Farmer*.

A THING THAT OUGHT TO BE KNOWN—The beech-tree, observes the Southern Religious Telegraph, is said to be a non-conductor of lightning. So notorious is this fact, that the Indians, whenever the sky wears the appearance of a thunder-storm, leave their pursuits and take refuge under the nearest beech-tree. In Tennessee the people consider it a complete protection. Dr. Becton in a letter to Dr. Mitchell, states that the beech-tree is never known to be struck by atmospheric electricity, while other trees are often shattered into splinters. May not a knowledge of this fact afford protection to many when exposed? And if such are the qualities of this tree, may it not be made useful as a protection to our dwellings?

THE CROPS—The cold and backward spring had very much disheartened our planters; but we learn, that within some few days past, the corn crops have grown rapidly and are promising—Cotton begins to come out a little.

The wheat crops in the vicinity are said to be good—and some good crops have been reaped in the ten days of fine weather the reapers have had for that purpose.

Rye looks well, but we learn that oats are not so promising. It needed more rain while rooting. Should the planters realize a large crop of cotton it may be difficult to determine what will be its effect. There is an unusually large quantity of the last year's crop in the hands of the planters. Should the present season be abundant, it is a very serious question to our merchants and farmers what course they should pursue. We ven-

ture to advise both to be cautious. The merchant should avoid laying in very large stocks, and the farmer should not be extravagant in his accounts, for this plain reason. Should cotton remain low in price, the planter cannot afford to spend much money, nor can the merchants make the collections upon which he relies to pay for his stock. Every thing enjoins upon us caution, great caution, economy, great economy.

These are at all times, especially now, important lessons. Let our people (who have been thus far prudent) become more provident and sparing both in contracts and expenditures.—*Milledgeville Journal*.

THE CULTIVATOR, OR HORSE HOE.

Every farmer should be furnished with this useful implement. In most cases it is far preferable to a horse harrow or plough, as it thoroughly loosens the soil, and leaves it light and even. It loosens the soil better than a harrow, and as it loosens the soil and width required between the rows, and leaves it sufficiently even, it is much better than a plough. As the Cultivator may be expanded or contracted according to the space between the rows, it can be used to advantage in cultivating corn, potatoes, cucumbers, ruta baga, &c. But very few Cultivators were used in this part of the country before last year. A dozen or two were sold here last season, and we have heard several farmers that have used them, speak of them in the highest terms. One observed that his workmen thought that the Cultivator did one half the work; another said that he would give thirty dollars for one rather than be without; and another said that he would purchase a cultivator every year rather than dispense with so valuable an implement. After a crop of early potatoes or peas is taken off, the ground may be loosened or ploughed with the Cultivator so as to prepare it for turnips. With only one good horse for a team, an acre may be prepared in about two hours.—When green sward is ploughed and the turf turned under smooth and even, the soil may be worked with the Cultivator without disturbing the turf which should remain at the bottom until it is sowed down to grass, and this is the best method of culture, as the turf forms a rich vegetable mould, and renders the soil far more productive, and the soil at top becomes rich to be turned under in turn. Let every farmer, before hoeing, examine this implement, and he will be unwilling to do without it, as it will be as good to him as a good hand.—*Yankee (Me.) Farmer*.

[From the Genesee Farmer.]

SURE AND CHEAP WAY TO DESTROY RATS.

Mr. Tucker,—I was present a short time since, when one neighbor was complaining to another that the rats were very troublesome. The other said he had got rid of his rats without much trouble. Says he, "I buy a hundred small fish hooks for a shilling, and take a small pine stick and slightly fasten six or eight hooks to it—the points all one way—and put the stick in the rat's hole, so that when they run into the hole they will rub against the hooks—the hooks will catch into the skin, and with a little exertion they clear the hooks from the stick, and go off, squealing, with the hooks fast in the skin, and a few rats so hook-

ed will give warning to others, and they will soon all disappear. Try it, and you will not be disappointed.

RAWSON HARMON, Jr.

Wheatland, May 17, 1837.

IMPROVEMENT IN THE WEAVING OF SILK.

The New York Post states, that an artist who has just arrived from Spitalfields, in England, Mr. John Sholl, has shown the editors two beautiful specimens, executed by himself with machinery of which he is the inventor. One of them is a copy, in small, of West's celebrated picture of the Landing of Penn; the other of a painting representing the Judgment of Brutus, by a young artist who received the premium of the Society in England for the encouragement of the Fine Arts.—The execution of these copies, it is added, has all the precision of the most beautiful embroidery. It seems almost impossible that any apparatus for weaving should be capable of tracing such flexible and varied outlines, and shading them with such nicety.

Mr. Sholl, who is a member of the denomination of Friends, has come over with the view of seeing whether his skill can be turned to any account in this country. Our silk manufactures, yet in their infancy, but which have sprung up in the midst of causes that are likely to insure their prosperity, stand in need of the assistance of experienced artisans. Mr. Sholl, we learn, is not only an ingenious mechanic, but skilled in all the processes of the silk manufacture; and we have no doubt that he will find sufficient encouragement to induce him to remain among us.

American.

[From the Watertown Eagle and Standard.] SUGAR FROM BEET.

We find in the Ogdensburgh Republican of the 30th ult. a communication from Josh. T. Marshall, Esq., of Morristown, land agent, &c., on the culture of the sugar beet. With commendable liberality he has procured a quantity of seed for gratuitous distribution, with the view of exciting the attention of farmers and others to the culture of the beet, not only as furnishing sugar of the purest quality, but also as a source of revenue, and the preparation of the soil for other crops. Having himself witnessed the cultivation of the beet and the manufacture of sugar therefrom, in France, he is every way qualified to furnish the necessary information relative to these facts, and this he has kindly promised to do from time to time as the crop advances to maturity. We subjoin a few extracts from Mr. Marshall's communication, as best exhibiting the importance of the subject:

"The value of this article of husbandry is not confined to its use as the material of sugar. As a crop to alternate with grain it has no rival; and by a judicious use of it no land need lie fallow.

"The 'cakes,' or that part which is left after the juice is expressed, affords a valuable nutriment for horses and cattle. It is eaten by them with great avidity.

"The mode of manufacturing the sugar from the juice of the beet is very simple. It is true that in describing the mode, learned men have used many hard words. But divested of technicalities and scientific terms, it is a matter of entire simplicity."

"The simplicity which is used in the manufacture of maple sugar may be advantageously used in this; and the manufacturing season is at another period of the year. There are some things in connection with the manufacturing process, which it is important should be known by those who purpose making the experiment. It will give me pleasure to furnish at a future time the details."

"It may be sown between the 1st and 10th of June. The land should be in good order; a soft sandy loam, if possible. It may be sown broad cast, or in drills.

"If the former, it should be harrowed in. The plants should be left from 12 to 18 inches apart. If they come up thicker than that, the surplus plants may be transplanted. No further directions are now necessary; they should be kept well hoed and free from weeds."

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry. Trip-Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators

Superior Grain Cradles

Weldron Grain and Grass

Scythes

Farwell's Patent Double

Back Grass Scythes and

Snathes

Hay Forks and Rakes

Manure Forks, Shovels, &c.

English Corn Hoes

Superior American made

Casteel Hoes, with handles

Wheat FANS, of various sizes

Mattocks, Picks and Grub-

bing Hoes

Corn Shellers

Threshing Machines, with or without horse power

F. H. Smith's Patent Lime

Spreaders

A great variety of Ploughs

of all sizes, with wrought

and cast iron Shares

Swingle Trees and Hames

Also, a great variety of

Plough Castings, constantly on hand for sale

by the piece or ton. All

kinds of Machine Castings

made to order; repairs on

Ploughs and Machinery

done at short notice

Liberal discount made to

those who purchase to

sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

July 4

J. S. EASTMAN.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each,

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER AND GARDENER, North-east corner of Baltimore and Charles-streets, Baltimore, Md.

April 18, 1837.

VALUABLE CATTLE FOR SALE.

THE undersigned is authorized to sell the following valuable Cattle, the whole the get of YOUNG MALCOLM. Young Malcolm is represented to be the handsomest short horn in Maryland; he was got by TECUMSEH; he by MALCOLM, out of ZENOBIA, both purchased of Col. JOHN HARE POWEL, by the late CHARLES CARROLL OF CARROLLTON.

2 full blood Durham heifers, 2 years old, in calf by Young Malcolm

1 do do 1 year old

1 bull Calf, half Durham, half Devon, a perfect beauty, 13 months old

1 full blood Durham Heifer, 2 years old

1 7-8 Durham bull Calf, 3 months old

1 Bull Calf, half Durham, half Dutch, or Holstein, 3 months old.

1 full blood Durham bull Calf, 6 weeks old

1 3-4 Durham bull Calf, 2 weeks old.

Any gentleman wishing to procure a stock of this celebrated breed of animals, or of adding to his present herd, will have an excellent chance of doing so, by applying to

EDWARD P. ROBERTS,

Baltimore, Md.

P. S. All letters of inquiry must be POST PAID. j 13

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent NEW BARN. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the county. It is remarkably healthy and handsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; cash will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to

EDWARD P. ROBERTS,
Baltimore, Md.

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 44½ inches high, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to

EDWARD P. ROBERTS,
Baltimore, Md.

A MARE AND COLT FOR SALE.

FOR SALE a brood Mare and Colt. The mare is now 8 years old, and has by her side a mare colt, dropt this spring. She is a large mare, blood bay, a fast trotter, and capable of going 1 mile 4 minutes, in a gig, with ease. The colt was sired by Young Tom, a first rate racker and trotter. The mare is sound, and would be a great acquisition to any gentleman wishing a brood mare.

Applications to be made to the editor of this paper. may 30

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 23 3m

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday.

	PER	FROM	TO
BEANS, white field,	bushel.	1 50	1 75
CATTLE, on the hoof,	100lbs	—	9 00
CORN, yellow,	bushel	94	95
White,	"	90	91
COTTON, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana 20a21-Alabama	"	—	—
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's,	"	—	—
SuperHow. st. in good de'd	"	8 75	9 00
" wagon price,	"	—	—
City Mills, super,	"	8 25	8 75
" extra,	"	8 50	9 00
Susquehanna,	"	9 00	—
Rye,	"	6 00	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	—	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	12 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	—	6 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	50	51
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	1 12	—
PLASTER PARIS, in the stone, cargo,	ton.	3 00	—
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	87	—
Susquehanna,	"	—	none
TOBACCO, crop, common,	100 lbs	2 50	3 00
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 50	1 80
Red, best,	"	1 60	1 70
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls.	gallon.	—	35
" in hhds.	"	—	34
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 50	—
WOOL, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do.	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	—	12½
Shoulders, do.	"	—	10
Middlings, do.	"	do	do
Assorted, country,	"	8½	9
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,	"	16	20
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	5 00	7 00
COWS, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 06	2 12½
CHOP RYE,	"	1 75	1 87½
EGGS,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,	"	7 00	—
Herrings, salted, No. 1,	"	2 87	—
Mackerel, No. 1, ——— No. 2	"	8 00	9 00
No. 3,	"	—	4 50
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	PER.	FROM.	TO.
U. S. Bank,	par	—	—
Branch at Baltimore,	do	—	—
Other Branches,	do	—	—
MARYLAND.			
Banks in Baltimore,	par	—	—
Hagerstown,	do	—	—
Frederick,	do	—	—
Westminster,	do	—	—
Farmers' Bank of Mary'd, do	do	—	—
Do. payable at Easton, ... 1	do	—	—
Salisbury, 2 per ct. dis.	do	—	—
Cumberland,	3	—	—
Millington,	do	—	—
DISTRICT.			
Washington, } Banks, ½ p.c.			
Georgetown, } Banks, ½ p.c.			
Alexandria, } Banks, ½ p.c.			
PENNSYLVANIA.			
Philadelphia,	do	—	—
Chambersburg,	1	—	—
Gettysburg,	do	—	—
Pittsburg,	3½	—	—
York,	1	—	—
Other Pennsylvania Bks. 4	do	—	—
Delaware [under \$5] 6	do	—	—
Do. [over \$5] 2	do	—	—
Michigan Banks,	10	—	—
Canadian do. 10	do	—	—
VIRGINIA.			
Farmers Bank of Virgin. 2	do	—	—
Bank of Virginia, do	do	—	—
Branch at Fredericksburg do	do	—	—
Petersburg,	do	—	—
Norfolk,	do	—	—
Winchester,	do	—	—
Lynchburg,	2½	—	—
Danville,	do	—	—
Bank of the Valley, .. 2	do	—	—
Branch at Romney, ... 2½	do	—	—
Do. Charlestown, ... 2	do	—	—
Do. Leesburg, 2	do	—	—
Wheeling Banks, 4	do	—	—
Ohio Banks, generally 6a7	do	—	—
New Jersey Banks gen. 5	do	—	—
New York City, 1	do	—	—
New York State, 3a4	do	—	—
Massachusetts, 3a3½	do	—	—
Connecticut, 3a3½	do	—	—
New Hampshire, 3a3½	do	—	—
Maine, 3a3½	do	—	—
Rhode Island, 3a3½	do	—	—
North Carolina, 6	do	—	—
South Carolina, 8a10	do	—	—
Georgia,	do	—	—
New Orleans, 15	do	—	—

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs. JOHN T. DURDING & CO. je 27 4t Fronting Grant and Ellicott sts

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

LIVE-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do exclusive of the wheels, shafts and axle,	60
For applying the machinery to a common cart	45
For the machinery alone	40
Including the patent fee in each case.	fe 28 3t

HARVEST TOOLS, &c.

Grain and Grass SCYTHES of most approved stamps—GRASS SNEATHES, with Scythes and Hangings complete; GRAIN CRADLES, 4 to 8 fingers, with warrant, ed scythes attached; Dutch and American SICKLES; SCYTHE STONES and STRICKLES, for whetting Scythes, BRAMBLE SCYTHES and HOOKS, for cutting briars and bushes; Mowers' and Cradlers' Hammers, Hay and Grain RAKES, Steel spring HAY FORKS.

And constantly kept for sale, PLOUGHS of various patterns, Cultivators for corn and tobacco, Wheat Fans, common and patent CORN SHELLERS, Cylindrical and common STRAW CUTTERS, Drills Machines for planting corn, beans, turnip seeds, &c.

Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO. 4t June 6

HAZELWOOD FEMALE ACADEMY,

FIVE MILES N. W. OF BALTIMORE.

This institution, situated a short distance from the village of Franklin, in a highly eligible and healthy location, will be re-opened for the reception of pupils, under the care and superintendence of Mr. and Mrs. THOMPSON, on Monday, the 12th of June.

In addition to the efficient aid already procured, in the various departments of Literature, Mr. and Mrs. T. can promise the patrons of the Institution, a regular series of LECTURES from the following eminent gentlemen, viz. On Moral Philosophy, Francis Waters, D. D. Natural Philosophy, J. H. Miller, M. D. } Professors in Chemistry & Botany, Ed. Foreman, M. D. } Washington Medical College.

Exact Sciences, Richard Cotter, A. M. Professor of Mathematics in Boisseau Academy. Polite Literature, S. W. Roszel, M. D., Principal of Boisseau Academy.

BOARD OF VISITORS.

Rev. Dr. Thomas E. Bond David Stewart, esq Frank-
Rev. J. G. Morris, lin st.
Charles F. Mayer, esq. James Barroll, esq.
J. P. Kennedy, esq. Jonathan Meredith, esq.
John Prentiss, President of Nathaniel Williams, esq.
Baltimore College

TERMS.

The Scholastic year will be divided into two sessions of five months each.

Board and tuition in the English and Latin languages, Mathematics, Moral and Natural Philosophy, Chemistry, together with the advantages of all the Lectures, (per session) \$100

French, Spanish and Italian, (each)	10
Music, Vocal and Instrumental,	30
Drawing (with materials,)	12
Washing and Bedding (if required)	15
Stationary at store prices.	—

The tuition fee will be due, and payable to the Institution, within the first four weeks of each session.

Any further information in reference to the above Institution, will be cheerfully given by Dr. ROSZEL, Boisseau Academy, St. Paul's street, or address Mr. and Mrs. Thompson, Hazelwood Academy, near Baltimore.

June 10—13

4t

CONTENTS OF THIS NUMBER.

Notice of an intended Cattle Show and Fair on the Eastern Shore—do. of some fine young Cows—do. of the crops—of Sewing Silk in Virginia—Rot in cotton—a new method of raising Potatoes—continuation of professor Browne's essay on Indian corn—mode of washing sheep—notice of a Cattle Show to be held at Easton—Mr. Camack's plan of raising potatoes—description of the Vinegar Tree—the beech-tree a non-conductor of lightning—crops in Georgia—value of the Cultivator—sure method of destroying rats—improvement in the weaving of silk—beet sugar—advertisements, prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 11.

BALTIMORE, MD. JULY 11, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

AMERICAN FARMER ESTABLISHMENT.

BALTIMORE: TUESDAY, JULY 11, 1837.

THE TURNIP CULTURE.

We insert in this day's paper, a very interesting essay on the culture of turnips. With few exceptions we see nothing in it to object to; we will however make a few remarks, in the order in which those of the author are arranged.

Soil—Upon the subject of soils, we have but a single word to say in addition to those in the essay. It is this,—that *new*, or *fresh* ground, is best adapted to the growth of this root. Where there are no such soil on the farm, the best course will be to supply it with a substitute, which is easily done, by ploughing in either a vegetable covering, or manuring broadcast with half rotten manure of some kind, to be ploughed in; that made by cattle is best, but in either case, a top dressing of ashes should be given just before sowing the seed.

Seed and Sowing—We prefer drilling wherever that mode is practicable. And as to the quantity of seed, we think that *half a pound* is quite sufficient; for if the *grass-hopper*, or fly, attack your patch, it matters not whether there be the plants of half a pound, or ten pounds on your ground, the chances are as nine to ten against you, that the *whole* will be swept off. Should neither of these enemies appear, the half pound of seed will give you more plants than ought to stand on the acre, so that, as well as a saving of the price of the seed, great economy in the thinning out the plants will be effected. In addition to the *soot* and *quick-lime* recommended, we would strew, in the proportion of 4 lbs. to the acre, of the flour of sulphur on the plants; to be put on early in the morning before the dew is off. It will act in the double capacity of repellent of the insect, and as manure.

Storing—The storing in pits we prefer to putting away in cellars. If covered with 9 inches of mould, with a wisp of straw at the top to act as a

ventilator, they will keep much better, and not be so subject to sprouting as if kept in a cellar.

Time of Planting—From our own experience we have come to the conclusion that turnip seed should, if possible, be put in by the 20th of July, and at all events during that month. By early planting this advantage is gained. Should the seed not germinate, or should the first sown plants be cut off by insects, there will still be time to resow with the certainty of maturing the crop.

CLINE'S COMBINED PLOUGH.

The inventor of this implement made a trial of one of them at our place, a few days since, in the presence of several gentlemen, farmers and machinists, the result of which was highly satisfactory to all present. They are constructed with from two to five shares. The one used upon this occasion had two steel shares, and was worked by one horse, which power was sufficient to enable it to do its work with great ease and exactness. As the reader will suppose, it carried two furrows, which were laid with much nicety. From the peculiar mathematical propriety with which the proportions of the plough are arranged, there is no jostling or inequality in the resistance, so that whether regard be had to the horse or the ploughman, the labor is lighter, much lighter, than with the common plough. Mr. Cline managed it most of the time with his finger and thumb resting on the reins placed on the cross-bar extending from handle to handle. The wood-work is got up pretty much upon the plan of a harrow with handles, is compact, strong, and competent to perform any work with proper force. The work performed at my place was ploughing in a small field of corn, and we were surprised to observe the closeness with which Mr. C. was enabled to approach the corn without injury. Indeed so exactly does it do its work, that there is little left for the hoers to perform; for, in fact, that as well as turning up the ground is done by the implement itself. So satisfied are we of its immense superiority, that we have engaged one, with a view of working our corn. To us it appears, that his double shared implements are competent, with the propelling force, to do as much more work in any given time as any other plough we have ever

seen, without increasing the labor to either man or beast.

Mr. Cline is a resident of Bucks county, Pennsylvania, a practical farmer, and knowing the deficiencies of the old plough, set himself sedulously to work to produce an implement that should supply them, and we think we hazard nothing in saying, that he has been triumphantly successful. He has a patent, and as we believe he deserves it, we sincerely hope he may reap a fruitful harvest of profit as the reward of his ingenuity and perseverance; for certainly he has rendered a most important service to his agricultural brethren, by reducing the expense of cultivation so far as the plough is concerned, fifty per centum. As "money saved, is money gained," so has Mr. Cline placed it within the power of every husbandman, to economise his ploughing expenditures to the amount named by us. At times like the present, when from the precariousness of our seasons, crops are uncertain, it becomes the farmer or planter to avail himself of every possible opportunity to curtail his costs of labor, therefore, it appears to us, that a more eligible means of effectuating this object, has seldom been presented to the public than the present, in the shape of labor-saving machinery.

We did not learn from Mr. Cline that he had disposed of any rights; but for the benefit of the community, we trust he may diffuse them in every direction of our widely spread country; for his plough is worthy of the most extended patronage, and we doubt not, when its advantages become generally known, it will receive it.

THE TOBACCO INTEREST.

We publish below the correspondence of *Thos. F. Bowie, Esq.*, of Prince George's county, Maryland, and Messrs. *Riley & Van Amringe*, of Philadelphia, on the subject of high duties imposed upon American tobacco by certain governments of Europe, and the monopolies established by others, to the great prejudice of the interests of tobacco growers in this country. This correspondence is of the deepest interest, and contains statements and facts which deserve the most serious attention. The letter of Mr. Bowie is so full upon the subject of remedial measures, that it leaves us nothing to add, and we, therefore, invoke for it

an attentive perusal, as well as for that of Messrs. Riley & Van Amringe. According in the views expressed by Mr. Bowie, we will add our humble hope to his, that the convention will not only be called, but act in that spirit of manly independence, called for by the wrongs of the tobacco growers, and our national honor.

Upon one of the statements of Messrs. Riley & Van Amringe, we propose to make a remark.—They compute that \$2,000,000 worth of Spanish tobacco and cigars are annually imported into our country; express the opinion, that “nearly, or quite all of this article could be grown in our own country,” and further observe, that “seed leaf is considerably grown in Connecticut, and some in Pennsylvania,” but that “these states are not as favorable to its production as states in lower latitudes.”

With regard to the growth of the *Cuba* variety of tobacco in this country, there can be no question. We recently enjoyed a cigar, the tobacco of which was grown in Dorchester county, Md., by that intelligent agriculturist, Dr. Meuse, who obtained the seed at Havana; which, for flavor was as fine as nine-tenths of the cigars imported direct from Havana, we say this without reserve, considering ourself a competent judge of the article. Surely if these two millions of dollars can be kept at home, it is worthy of a trial; that the requisite quantity of leaf to supply the demand, could be raised in the middle and southern and western states, we apprehend there can be no doubt seriously entertained; that raised farthest south, we believe would be most exquisite in flavor, and consequently command the best price.

UPPER MARLBRO', June 19th, 1837.

MR. EDITOR—I send you the enclosed letter addressed to me by Messrs. Riley & Van Amringe, of Philadelphia, for publication in your paper, under the conviction that the information it contains, and the views expressed by the writers, will prove highly interesting and useful to those who feel an interest in the success of the efforts which are now making in favor of the Planters of Tobacco. You will recollect that much of the information which the Convention of Tobacco Planters recently held in Washington, derived, upon the subject of the Tobacco trade with foreign nations, and the high rate of duties imposed by them on Tobacco, was furnished by “a circular” addressed to them by the gentlemen who have written this letter; and, to no one are we more indebted, than to these gentlemen, for the zealous interest manifested by them in behalf of the measures which have been adopted, and are now in progress, to benefit the condition of the Planters of Tobacco, and to place that valuable and important branch of our trade with foreign nations, upon grounds of reciprocal advantage with all others. The views expressed by Messrs. Ri-

ley & Van Amringe, certainly deserve the serious consideration of the friends of these measures, and their attention cannot be too soon awakened to the importance of commencing early operations, with a view of calling the attention of the next Congress of the United States to the subject. Our Tobacco trade with Foreign nations, is more valuable, by far, than that of any other article of export, with the exception of cotton; and, that too, under circumstances of the greatest disadvantage, clogged as it is with restrictions, monopolies, and excessive duties by foreign Governments.

The exports of Tobacco, from the United States for the last year, amounted to upwards of \$12,000,000, while that of cotton, amounted to upwards of \$80,000,000. The Tobacco trade is, in fact, the second in importance and magnitude, which this country has with foreign nations, and, it is the duty of Congress to protect so large and valuable an interest, from the ruinous effects of foreign Government monopolies, and excessive duties.

Our exports of Tobacco, to England alone, for the year ending 30th September, 1836, where a duty of \$1,000 on every hogshead is paid, amounted to \$5,202,645. To France, where a Government monopoly exist, and where importation of American Tobacco is limited to 5,000 hogsheads only, the value of our exports of Tobacco, during the same year, amounted to only \$908,699. We imported from France during the same year, silk goods to the value of \$15,611,188; cotton goods to the value of \$2,199,982; Wines to the value of \$1,942,179; and Brandy to the value of \$1,109,846. Thus it will appear, that while France excludes our Tobacco, one of our most important branches of national industry, we are in fact receiving with little or no duty, her silks, wines and brandies, all articles of luxury, to the value of \$18,663,193 per annum. I ask seriously, ought such a state of things be permitted to exist? Will the States of Virginia, Maryland, Ohio, Kentucky, Tennessee, Missouri, North Carolina, and Indiana, any longer submit to so gross and palpable an outrage upon the prosperity and interest of their citizens? Congress ought, and no doubt will, if properly invoked, pass some retaliatory measures, against those foreign Governments who have conspired together, to exclude our Tobacco from their ports. The whole South will unite with us upon this question. They have evinced a disposition to do so already, and if we are but true to ourselves, we must ultimately succeed. The wrongs and injuries we are suffering, are too monstrous to be tolerated any longer. For the last twenty years no people on the face of the Globe have been more oppressed and plundered, than the growers of Tobacco in this country—their labor has been less rewarded, and their interest more neglected, than those of any other class of our population. It is now high time that they should awaken to a proper sense of their rights.

To the magnanimity, wisdom and sense of justice of the last Congress, the planters are much indebted for the favorable legislation of that body, upon a subject intimately connected with their prosperity, and we must look with intense interest to the result of those measures. But we must not permit our efforts to slumber. We shall

hear, before the next regular period for the meeting of Congress, from some of our Foreign Ministers, who have received instructions from the President, upon the subject of a reduction of the duties on Tobacco by foreign Governments, of the probability of their success; and, in case their efforts, by negotiations, should be likely to prove unavailing, we ought to be prepared to resort to some other method, to obtain a redress of our grievances. The suggestions of Messrs. Riley & Van Amringe, on this subject, seem very appropriate at this time. Let the planters of Tobacco petition Congress at its next session, to adopt some retaliatory measures against these foreign Governments, which have either by excessive duties, Regies, or other monopolies, imposed such heavy restrictions upon our Tobacco trade. It is a measure of self-protection which is called for by a just and proper regard for our interest, and, I cannot doubt, that it will meet with the favorable consideration of Congress. It is our duty, at all events, to use every exertion to produce so desirable a result, and I sincerely trust, that the Planters of Tobacco throughout the Union, will, by their firm and united efforts, evince a fixed determination to take up the matter seriously, with a view to some speedy and practical end.—You may have probably seen, that the President of the Convention of Tobacco Planters, which assembled in Washington last winter, has been invited to re-assemble that body some time during the first week of the next regular session of Congress. I hope it will be done; and that ample notice will be given of the time and place of meeting, so that a full representation may be sent from all the other States in the Union interested in the cultivation of Tobacco. No fitter occasion could be presented, than for that Convention thus assembled, representing as it would, the entire interest of the great body of Planters of Tobacco in the United States, to send such a petition to Congress. Such an appeal in favor of our just rights could not be disregarded, without a total violation of those duties which a wise and parental Government so essentially owe, to so large and oppressed a portion of her people.

Yours, respectfully,

THOMAS F. BOWIE.

PHILADELPHIA, 12th June, 1837.

THOS. F. BOWIE, Esq.,

Dear Sir:—Your favor of March 9th was duly received, but was not answered earlier owing to the protracted absence of Mr. Van Amringe.

The Convention of Planters which met in Washington last winter, so far as the proceedings shew, confined its labors exclusively to the high duties on Tobacco in foreign countries. But, in our opinions, the Regies, or monopolies by the different governments of Europe, are much more serious embarrassments to the trade than the duties. High duties of course decrease consumption; but the market being left open to commercial enterprise, and consumption being, in a considerable degree, proportioned to the general prosperity and habits of the people, they are, by no means, so pernicious as exclusive monopolies. Our exports of Tobacco, for instance, to England, for 1835 were 27,563 Hhds. valued at \$3,397,415. And in the same year we exported to the Hanse Towns 27,989 Hhds. valued at 1,539,362.

Thus you will perceive that the value of our Tobacco trade with England is more than double its value to the Hanse Towns; and yet the duties in England are more than six times the original cost of the article, while in the Hanse Towns it is a mere nothing. But no shipments of Tobacco are made in France, Italy, &c., but in the fulfilments of contracts with the respective governments, which of course excludes private enterprise.—France, on an average, takes about 5000 hhds. from this country, which is supplied by two or three contractors. Austria is supplied by one contractor, and so of the rest. Thus we have only three, four, or five purchasers in our market for a very large proportion of our exports, instead of the usual mercantile competition. Competition is the life of trade. It not only operates beneficially on a market during the continuance of the demand, but the activity begotten by it, is beneficial to the whole stock remaining on hand. Besides the stock always on the foreign merchants' hands (if the business were open to them) would probably equal one year's exports, which would of course be a great benefit to the growers of this country. But these Regies, or foreign monopolies, also prevent the growers of Tobacco of this Country, from entering into competition with the foreign grower, which they would successfully do if the market were open to them, unless the duties were excessive. You will perceive, therefore, that although we agree with the Planters' Convention that the high foreign duties are very injurious to the trade, yet we think that the Regies or monopolies, are far more injurious, for the reasons already given, viz: 1st. Because our Planters, by reason of the monopolies, are prevented from entering into competition with foreign growers of Tobacco, either in quality or quantity: And 2ndly. The dealers and growers of Tobacco in this country are deprived of the benefit of an extensive foreign competition in the purchase of this great staple, in our own markets. We have therefore two great objects to be attained by treaty with foreign nations, viz: The reduction of excessive duties, and the abolishment of Regies or monopolies. Now both these great objects might be obtained by strong and earnest representations to foreign governments. Take France for an example, we take her Wine, Brandy, Silk, cotton fabrics, madder, fruit, &c. She takes nothing from us, of any great value, but Cotton—Tobacco being subjected to the Regie. Her Wine and Brandy, are certainly no more valuable than our Tobacco; and her silk can be dispensed with or furnished by others who are or will be more liberal in trade. Our country is better suited to the culture of the grape and the silk worm than France is to that of tobacco. It is a forced cultivation protected by a monopoly. Would it not be better for France to be supplied with tobacco from us, than to be cut off from supplying us with wine, brandy and fruit, to say nothing of her madder, silk and cotton goods? Would it not be well for the tobacco planters to petition Congress, the next session, to adopt retaliatory measures against European governments, which have, either by excessive duties, Regies or monopolies, subjected one of our great staples to so much embarrassment? If such petitions should come forward from North Carolina, Virginia, Maryland, Ohio, Kentucky, Tennessee, Mis-

souri and Indiana, might they not induce foreign governments to deal more liberally with us in reference to this important branch of our trade? Would they not at least enable our ministers to treat with them more seriously, and with a better prospect of success? And if the committee of Congress, to whom the subject would be referred, should adopt a politic report, even if it should not be acted on at the next session, foreign governments would regard it with much interest, and no doubt be disposed to adopt some measures of relief.

Another very important subject which we believe was overlooked by the Planters' convention, is the fact that we import Cigars and Tobacco to an amount we think fully equal to half the total value of our exports of tobacco. In the single item of cigars, our importations for last year (1836) were to the value of 1,058,857 dollars; of which 1,043,731, was furnished by Cuba. As Spanish leaf tobacco pays an ad valorem duty, we have no means of ascertaining the value of importations of leaf, but suppose it to be of greater value than the Cigars. Thus we import annually foreign tobacco to an amount over 2,000,000; which is nearly equal to one half the value of our exports of this article. We think nearly, or quite all of this article could be grown in our own country. Seed leaf is considerably grown in Connecticut, and some in Pennsylvania. But these states are not as favorable to its production as states in lower latitudes.

The law of your state, which prohibits the exportation of tobacco, without inspection, to a sister state, is selfish, and is certainly prejudicial to the interest of growers, and consequently to the state. As you say, it gives Baltimore a monopoly, and monopolies are always injurious. Inspection laws are, or should be, made only to prevent frauds, but their tendency never should be to give one class of citizens, or one city, an advantage over others. As the agricultural interest lies at the foundation of all prosperity, it should never be shackled more than is necessary to prevent frauds. At least it should never be made tributary to any other class, or place.

We think, without vanity, we may say, that our house has devoted more attention to the subject of tobacco than any other; and we will rejoice to find our efforts seconded by Planters.—It is with this view we suggest the above.

We will be much obliged if you will give us, at your earliest leisure, the names of all the counties in your State which grow tobacco, and, as early as possible, the average quantity grown in each county. Also the same of Virginia.

Considerable capital is employed in the tobacco trade here, but we do not know of any persons who would be likely to want agents for the purchase of tobacco. We are exclusively a Commission House.

Respectfully yours,

RILEY & VAN AMRINGE,

SPRING WHEAT.

As there seems to be considerable anxiety among agriculturists to learn the character of this newly introduced variety of the wheat family, we have appended the following extracts of letters

and remarks upon the subject, which have been communicated by a gentleman in Pennsylvania. Some of them have appeared before, but as there appears to be a connected link running through them, we have not felt at liberty to separate them.

EXTRACTS FROM LETTERS.

J. Buel, esq.—Sir: I send you enclosed a small sample of *Italian Spring Wheat*. This sample is taken from a parcel I purchased a few years since, and is part of the four years crop since introduced of the original importation. The seed was brought to this country in 1833 by Signor J. B. J. Carbonai, from the city of Florence, Italy—The cask was sold for charges; I bought it, and finding it a heavy beautiful grain, prevailed with several of our farmers to sow it; the result was most gratifying. Sowed side by side with our country spring wheat, it exceeded it two feet in height, standing on the ground. It has succeeded well every year since—it yielded double the quantity, weighing sixty-three pounds to the bushel, and producing from twenty-five to thirty-five bushels to the acre; grows well on every variety of soil on which it has been sown. Very few of our farmers will now sow winter wheat, finding this wheat a sure crop.

Your ob'dt

JAY HATHAWAY.

Rome, N. Y. March 24, 1836.

J. Buel, esq.—I have the pleasure to inform you that the crop of Italian spring wheat through this and the adjoining towns, is remarkably fine, while our winter wheat crop has in most cases failed, whole fields having been winter killed. The produce this season is rated from twenty-five to thirty-five bushels per acre and choice samples. The wheat deserves the attention of agriculturists in every section of the country, as it has not failed in any instance.

Your obedient servant,

JAY HATHAWAY.

Rome, Aug. 15th, 1836.

Extracts from the Cultivator, printed at Albany N. York, for April, 1837.

"There seems to be two kinds of Spring Wheat of great repute in Oneida county, the Italian and Siberian, which we have till now supposed to be identical. The kind noticed by Mr. Hathaway is alleged to have come from Florence, and is called Italian. We have received a sample from Dr. Goodsell of Utica, said to have come from Switzerland, which is denominated Siberian. The Siberian is the largest bury, and duldest color; the Italian the smallest and brightest grain."

"The character of the Italian wheat has been already given by Mr. Hathaway; that of the Siberian we derive from Dr. Goodsell. Mr. Tower, near Deanyville, as we are advised by a gentleman from that place, raised 160 bushels on four acres last summer. It makes a heavy return in flour, Dr. Goodsell having obtained 50 lbs. 6 oz. from a bushel, 2 lbs. 6 oz. above the standard of good winter wheat. It is believed it will escape the ravages of the grain worm, from the circumstance of its being a late variety. Both kinds are in great demand, and have been purchased up at \$3 per bushel. Our neighbor Thorburn, the seedsman, has procured a few bushels of the Italian, at an expense of about \$4 50, and sells at \$5 per bushel. We intend to try both kinds."

"J. L. Pierce—Dear Sir: I think I shall be able to get a few hundred bbls. of the Italian Spring wheat this fall. The crop now looks finely; it is a feast to look at it. It is a heavy grain, often weighs 63 lbs. to the bushel, makes handsome and good flour, is a white chaff bearded wheat, standing 3 feet on the ground, some 4 feet; from 20 to 36 bushels per acre was obtained last year according to soil and culture. Any land sufficiently in heart to bring good oats will bring a fine crop of this wheat. The millers speak well of it; it makes sweet and good bread.

Yours, truly, J. HATHAWAY.
June 9th, 1837.

I send a sample of the wheat."

INDIAN CORN.

AN ESSAY ON INDIAN CORN

DELIVERED BY

PETER A. BROWNE, Esq. L. L. D.

Professor of Geology and Mineralogy in Lafayette College, Pa. Professor of Geology in the Cabinet of Natural Science in Montgomery county; member of the Geological Society of Pennsylvania; and corresponding member of the Cabinet of Natural Science of Chester county, Pennsylvania, read before the latter Society, April 22, 1837.

(Continued.)

In Denmark the chill atmosphere of the climate is less favorable to the cultivation of wheat than barley, rye and oats, all of which afford a large surplus for exportation.

In Sweden and Norway they have one million three hundred and sixty-three thousand acres of land under cultivation, but the annual average of grain sown on each farm does not amount to a bushel, and the produce of the whole country does not exceed seventy-one thousand quarters; hence Sweden, until lately, imported grain to a great extent; and such was the scarcity before 1812, that the peasantry often ground the bark, and even the wood of the fir-trees into flour. In 1827, Sweden exported thirty-nine thousand, and in 1828, one hundred and sixty-four thousand tons of grain of every description.

There is no country in Europe which produces a greater amount of valuable agricultural productions than Holland and Belgium. But their climate being humid, the principal objects of culture in the Dutch Provinces are connected with pasturage.

From careful enquiries carried on by the government of the Netherlands, the agricultural capital of the country is estimated as follows:

	Hectares.	Francs.
Wheat	350,000	154,000,000
Rye	700,000	168,000,000
Buckwheat	200,000	32,000,000
Barley	280,000	84,000,000
Pulse	110,000	48,000,000
Potatoes	131,000	41,000,000
Oats	300,000	84,000,000
Orchards	54,000	3,000,000
Vegetables	92,000	55,000,000
Hemp and Flax	210,000	126,000,000
Madder	30,000	21,000,000
Cattle and Animals		150,000,000

966,000,000

A French hectacre is 2.473614 acres English.

France, in regard to internal economy is one of the richest and most flourishing countries in the world. Grain is raised in sufficient quantities to supply their extensive population with food.—Maize is mixed with other grain in the southern departments. The following is an average produce of grain from 1800 to 1812:

	Hectolitre.
Wheat	51,500,200
Rye	30,200,161
Maize	6,802,315
Buckwheat	8,409,473
Barley	12,576,603
Potatoes	19,800,741
Oats	32,066,587

160,946,081

Average from 1825 to 1828:

	Hectolitre.
Wheat	60,553,000
Other Grains	114,733,000
Potatoes and Chesnuts	46,238,000
Wine	35,500,000

A French Hectolitre is 22.009667 gallons English.

The grain produced in Spain is of an admirable quality, yet they do not grow grain enough for their own use; they make regular importations.

The agriculture of this kingdom is remarkable for producing wool, wine and barilla. The entire number of sheep is five millions.

They consume twelve million quarters of grain annually, of which they raise two-thirds.

Portugal though generally fertile, does not produce one-third of the grain necessary to supply its wants. The chief objects of attention are the vine and the olive.

Maize succeeds in Switzerland, 2000 to 2500 feet elevation.—[Geological Dic. vol 2, p. 58.]

The Missionaries Smith and Dwight, state that they found rich and luxuriant crops of Indian corn growing in Asiatic Turkey.

III. How much is raised in the United States?

I have not been able to arrive at even an approximation to the amount of Indian Corn raised in the United States, although I have spared no pains to obtain it; a gentleman in Missouri writes to me that "on the meadow lands of Missouri, bordering on the Mississippi River, he saw last summer thousands of acres of Indian Corn in Clark, Lewis and Madison Counties which produced not less than one hundred bushels to the acre, without any use of the hoe."

A gentleman in Kentucky says, "It is impossible for me to state any thing like the exact quantity of Indian Corn raised in our State; it is a principal grain with us, and it is no uncommon thing for our farmers to plant from one hundred to five hundred acres each year. In regard to the quantity exported from this state, I am not prepared to give any very accurate account, but believe it to be small in proportion to all other exports; my reasons are that it is a heavy article, and we live far inland,* and our principal attention has been for many years turned to the raising of stock, and when we reflect upon the

"vast amount of stock driven from our State to every other part of the United States, it would be wonderful if we should export any considerable amount of grain of any kind. In order to give a fair idea of what is thought to be the ability of this and the adjoining State to export corn, I will mention that I have seen within a few days an advertisement calling for 20,000 bushels of corn to be delivered at a single point on the Mississippi river, and believe the price has been for some time from one dollar to one dollar and fifty cents the bushel."

Even in our own State I have been unsuccessful; a gentleman of Chester County writes to me, "I could not venture even to guess at an answer to your ninth question. I can scarcely guess at the quantity exported. I will, however, submit to you the following data for a calculation.—Chester County is about fifty miles long, and twenty miles wide. About half the land is under cultivation. About one-tenth of the arable is annually planted with Indian Corn. The average product of this, is about forty bushels per acre, or perhaps (taking the whole county,) not more than thirty bushels per acre. It is probable that one-third of the whole product is sent to market. Taking thirty bushels as the average crop, these data would make about three hundred and twenty thousand bushels of Indian Corn exported annually from this county. This I think is a low estimate."

IV. The varieties of Indian Corn.

Catalogue and description of the Specimens in Peter A. Browne's Cabinet of Indian Corn.

A. Yellow Corn.

A a. No. 1. The genuine gourd seed Indian corn, so called from the supposed similitude in shape, between its grains and the seeds of the gourd; the spike contains, when thus unmixed with any other variety, twenty-four rows, which is the highest number of rows on any cob of Indian corn I have ever seen. I have heard of twenty-six rows. When this corn is mixed with any other variety, its spike gradually diminishes in its number of rows until it arrives at the maximum of the variety with which it is mixed.—Examples of these mixtures are seen in

No. 2, of twenty-two rows; No. 3, of twenty rows; No. 4, of eighteen rows; No. 5, of sixteen rows; No. 6, of fourteen rows;* and No. 7, of twelve rows.

A b. No. 8. Is the genuine King Philip Indian Corn, so called from the celebrated Indian chief, "Philip king of the Wampanoags." It has eight rows, which is the lowest number of rows on any spike of Indian corn. It is a hardy plant, belonging to a high latitude, the seed was originally obtained from the aborigines of the north.

This variety mixes well with the gourd seed, and Nos. 2 to 6 inclusive are the products of these essays. No. 7 is a mixture of Nos. 1, 8, and 22.

A c. No. 9. The Sioux or yellow flint Indian corn, with twelve rows. The seed was obtained from the Sioux tribe of Indians, who at the settlement of Canada, inhabited the north, but who are now residents of the west.

*Spring Valley, Fayette County.

* Called in Maryland the Dutton Corn.

(To be Continued.)

[From the Genesee Farmer.]

THE TURNIP CULTURE.

All British writers agree, that the introduction of the turnip culture into Great Britain, which is of comparative recent date, has contributed more than any other improvement in rural economy to the advancement of agriculture. This culture is of very recent introduction here, and indeed may be said hardly yet to have obtained a footing among us. Yet from the limited experiments which have been made, and from the rapid extension of the culture within the two last years, we have reason to believe our climate and soil are well adapted to the growth of this root; and that although it requires some extra labor to secure the crop for winter and spring use, it may nevertheless be cultivated here to great advantage.

The benefits that result to the farmer from the culture of turnips, as a field crop, are three-fold, viz. 1. They serve to ameliorate the soil, and are excellent as a green crop, to alternate with grain and grass. 2. They afford the most animal food, at a given expense, on a specific measure of land. And 3. They return the greatest quantity of manure to the soil. The turnip, like the clover and root crops generally, not only exhaust the soil least, but make up for this exhaustion, in a measure, by dividing and pulverizing the soil, and freeing it from weeds. Although 20 tons an acre may be deemed a fair average crop, the product has in many cases been carried beyond 60 tons. They come in use at a season when succulent food is most in demand; they are eaten by all kinds of farm stock, and constitute, in Britain, the principal material for winter fattening beef and mutton. It will be seen in our March number, that turnip feed is estimated to add one quarter to the dung of the cattle yard. These considerations induce us to add to the facts we have already published, in regard to the turnip culture, such others as may tend to increase their growth among us.

Soil—The soil best adapted to turnips is of a dry bottomed, free nature, of some depth and fertility; but, although distinctively termed 'turnip land,' it yet comprises every species of earth which can be profitably used for any arable purpose, provided it be light, dry and friable: consequently exclusive of heavy clays. It must, however, be understood, that although the common root can be grown on the poorest sands and gravels, yet there are some species which require stronger soils—even rich free loams; and they all demand very careful culture, with an abundant supply of manure. The plant delights in a 'cool, temperate and moist climate,' and therefore will thrive best in the northern section of the union and in elevated districts.

Species—Although the varieties are numerous, the British writers class them under the heads of white and yellow species, and Swedish. The latter has gained a decided preference, on account of its superior richness and long keeping property. Yet, as affording earlier feed, and as enabling them to preserve the Swedes till late winter and spring, the extensive turnip growers in Europe generally cultivate also the white and yellow. The white turnips,—the white globe is preferred—are fed first; the yellow, which are richer, and keep longer than the white, particularly the Aberdeen yellow, are fed next, and the ruta

baga last. The roots of the Swedish are at least one third heavier than the other species, and their tops are so much more palatable that cattle after being fed upon them, will not eat the common kinds, unless impelled by hunger. They are besides more hardy—a large quantity having stood the severe winter of 1835-6, in the open ground, without material injury; though it should be mentioned that they were sown very late, and had not attained their natural growth. They differ in another respect from most other roots—the larger they grow, the greater is their specific weight and nutritive properties. We will add another remark—there are varieties of the ruta бага differing greatly in excellence. The true sort has yellowish flesh, a globular shape, and is without a stem; but it is apt to degenerate by the flesh becoming white or by the crown running up into a stem of more or less length. None but the true kind should be employed for seed. Besides, the species requires a richer soil than will grow the other kinds.

Seed and Sowing—The time of sowing should vary according to the kind and climate. It has been suggested, that if the white and yellow were sown in April or May, as in Britain, they would afford fattening materials for cattle and sheep in September and October. We do not know that the experiment has been tried, but we doubt its success, on account of the heats of our summer being unfavorable to their growth. From several years experience with all the kinds, we recommend for this latitude, from the 20th June to the 1st July for the ruta бага; from the 5th to the 15th July for the yellows and globe, and from the 20th to the 30th July for the flat red and green top; the first of these periods for cold soils and elevated districts, and the latter for warmer situations. For table use, where large size is an objection, the Swedes may be sown in the early part of July, and the flat kinds early in August. Half a pound of good seed will give plants enough for an acre, put in with a drill harrow; yet as many seeds will not vegetate, and as the plants are liable to be destroyed by the fly, we generally allow a pound of seed to the acre, and some give double this quantity. The seed should be full bodied and black, the green and yellow often proving abortive.

Culture—The drill culture is decidedly best for the Swedes, and for the other large varieties, on account of the greater facility of cleaning and stirring the ground with the cultivator among them. The British writers recommend ploughing directly after harvest of the preceding year. This would be a waste of labor and of ground here. Early southern clover may be cut in time to put in even the Swedes here, and our small grain is off the field here generally in time to sow the white and yellow as a second crop upon the stubble. And at all events, if the crop is put on tilled land, the more recent the ploughing and harrowing before sowing the better. If sown broadcast, the ground should be afterwards rolled, and the crop hand hoed and thinned as soon as the plants have well put forth their first rough leaves. The manure, which should always be applied to this crop, is differently applied. If long manure is applied, we would prefer to have it spread and covered with the plough; though if it is applied moist, or is immediately after covering

saturated with an abundant rain, it may be advantageously applied in the drills. There is a greater propriety in applying short manure, or bone dust, in the drill to this crop, than to almost any other, as the roots gather their food within a limited space. We have seen short muck applied as a top dressing to the common turnip, when sown broadcast, with the best effect. When cultivated in the drill system, with the manure deposited in the drills, the usual distance between the rows is twenty-seven to thirty inches.

In sowing, the drill harrow, of which several kinds are now for sale, is the best implement to use. A man walks briskly forward with one of these before him, propelled like a wheel-barrow. The drill is made, the seed sown, covered, and, by some the ground rolled, as he advances. Where this implement cannot be had, a small implement formed like a pepper-box, with holes at one end, and fastened to the end of a walking stick, and followed by a man with a rake to cover the seed, may be substituted. Sow upon the fresh stirred soil.

After the sowing is completed, the plants generally make their appearance in from five to eight days; and if the weather is showery, they will soon grow into what is termed the rough leaf, when they are a couple of inches high. The process of horse hoeing then commences, by running the cultivator, or light plough, up and down between the rows, as near to the plants as can be done without injury, or within three inches of them, so as to cut up any weeds that may have sprung up. In two or three days this should be followed by the hand hoe. The weeds should all be eradicated, and the plants thinned, by drawing the hoe cross-wise of the row, so as to leave them standing single at the distance of eight or ten inches. The cultivator may be subsequently once or twice passed again between the rows, and the few weeds that will spring up be destroyed. The turnip crop may be advantageously followed with spring wheat or barley.

Quality—The relative portion of nutriment afforded by each of the following species, has been estimated by the late Mr. George Sinclair, as amounting, in 64 drachms, to

White tankard,	76 grains.
Common white loaf,	80 "
Norfolk white	83 "
Stone or garden,	85 "
Swedish turnips,	110 "

The *Turnip Fly* is the greatest enemy to the crop; and although many preventives have been recommended, no particular one seems to have given full confidence. Soot and quick-lime have been strewed along the drills, and on the young leaves, at the rate of six bushels per acre, with good success. This mixture is applied when the leaves are dry. Some sow radish seed with their turnips, which first attract the fly. The London Society of Arts awarded a gold medal for this mode of prevention, which consists in drilling thick, a row of common turnips between the rows of ruta бага. The fly destroyed the former, and spared the Swedes.

Gathering the Crop—The roots may be generally drawn by the hand, or with a potato hook. They should be topped and tailed, and be permitted to lay upon the ground till the loose dirt

separates from the roots. We have described the best mode of performing these processes in two or more of our numbers. They should not be cut too close, nor the roots wounded, lest it causes them to rot.

Storing.—They may be stored in cellars or pits, as before described. Let the pits not exceed three feet in breadth, raise the roots a foot above the surface of the ground, sloping from the sides to the centre, cover with a good thickness of earth, and by all means take care to ventilate at the crown of the pile, to prevent the roots heating and becoming rotten.

Use.—The ruta бага, in particular, is eaten by all farm stock,—sheep and oxen are fattened upon them. They are almost invariably fed raw, but require to be cut, or sliced. There are machines for doing this in a summary way; but the labor is readily performed with a spade or meat smir.

"The extended culture of the turnip," says Prof. Lowe, "has enabled us to carry the practice of breeding and feeding our domestic animals to a state of perfection, in which no other country has yet been able to rival Great Britain. The cultivation of the plant in rows, instead of the former method of broadcast, may well be regarded as an improvement of the highest importance. It has enabled the farmer to secure abundant returns, which the former methods of cultivation did not admit of, and so to increase the number of useful animals, that may be maintained upon the farm, and to subject the lighter soils to a species of culture more beneficial than any other that had been before devised for them."—*Cultivator*.

CROPS AND SOILS TO WHICH THEY ARE ADAPTED.

The annexed table, says the writer of British Husbandry, has been given by Von Thaer, as a classification of soils, which we deem entitled to particular attention, as in some degree governing the course of crops; for, although the real value of every rotation depends, in a great measure, upon the manner in which its several processes are executed; yet abstractly speaking, some courses must be viewed as better than others, because the crops may be more suitable to the peculiar qualities of the land on which they are to be grown. The last column in the table comprises an analysis of the comparative value of the different component parts, and is the result of many years careful examination of the soils, as well as of the proceeds of the crops, after the deduction of labor and seed.

Nos.	SOILS.	Clay per cent.	Sand per cent.	Carb. of lime, per cent.	Humus per cent.	Value.
1		74	10	4½	11½	100
2	First class of strong	81	6	4	8½	98
3	wheat soils,.....	79	20	4	6½	96
4		40	22	36	4	90
5	Rich barley land,....	20	67	3	10	78
6		58	36	2	4	77
7	Good wheat land,...	56	30	12	2	75
8		60	38		2	70
9	Ordinary wheat land,	48	50		2	65½
10		68	30		2	60
11	Good Barley land,...	38	60		2	60
12		33	65		2	50
13	Ordinary barley land.	28	70		2	40
14		23½	75		1½	30
15	Oat and rye land...	18½	80		1½	20

It will be perceived, that the wheat soils possess from 40 to 81 per cent. of clay, and at least two per cent. of carbonate of lime, which latter seems to be an indispensable ingredient in a wheat soil; and that neither barley, oats nor rye, and we may extend the remark to Indian corn and turnips, require carbonate of lime, though this always gives a chemical and mechanical improvement to the soil, by rendering sands more compact, and more retentive of moisture and manure. Those soils in which sand predominates over clay, are best adapted to the growth of Indian corn and ruta бага; though for both they should be artificially enriched by a good coat of manure.

Nos. 1, 2 and 3 are alluvial soils of the richest quality, and embrace much of the land of secondary formation west of the great Alleghany range; and from the large portion which they contain of vegetable mould, or humus, and the intimate state of mixture in which it is found, they are not so stiff as the quantity of clay which they contain would seem to indicate. From the absence of carbonate of lime in our primary formation east of the Alleghany, many districts, although having the other earthy ingredients and humus, are not congenial to the growth of wheat.

No. 4, is a fine clay loam such as abounds in many parts of this state, and is termed our best barley soil; and, although what may be termed strong land is yet of a texture which renders it easy to be worked; it is consequently evidently suitable to the alternate system of husbandry.

Nos. 6 and 7 are both good soils—the quantity of carbonate of lime compensating, in a measure, for the smaller portion of humus; but necessarily requiring the addition of a proportionate quantity of dung to supply that deficiency.

Nos. 9 to 13 are adapted to the Indian corn crop, always, however, requiring manure to render it profitable. They are of average quality of common tillage land; yet, from want of carbonate of lime, are sensibly improved by mild lime, drawn ashes and marl.

Nos. 14 and 15 are denominated light sands, which when manured and judiciously managed, by frequent aeration of grass, the application of gypsum, and the pasturing of sheep, may be kept in heart, and rendered productive.

Scarcely any soils contain more than five per cent. of humus; but if the staple of the land be loamy, even two per cent. will render it fit for the production of grain. The friability of its texture is, indeed, an object of the first importance, for it is a great saving of labor and expense; and if the ground be tolerably well managed and dunged, it can always be maintained in good heart.

The analysis which has been thus given of soils, extends only to the depth of six inches from the surface, without reference to the subsoil, which may greatly affect their value; for however rich soils may be, if that be either too porous or too retentive, they may be rendered, in certain seasons, unproductive. If, however, they contain a layer of nine inches to a foot of good earth, the subsoil may then be considered of little consequence; though a limestone bottom will always command a preference. The exposure, with regard to the sun, and the situation of the land, in respect to its shelter from cold winds, are, also, objects of such extreme importance, that they may make a difference in point of climate equal

to several degrees of latitude. This should serve as a hint to those who commence improving new farms or who have wood land in reserve, to leave a belt of wood on the exposed quarters of their farms or fields.

Our readers will be able to perceive from the foregoing, that it is of importance to the farmer to be able to ascertain the composition of his soils. The analysis of soils may be taught in our schools, as readily as a rule in arithmetic—if our school masters knew how to teach the process.

CULTIVATION OF THE SUGAR BEET.

The subscriber will be greatly obliged to individuals who favor him with queries on the beet subject, either to pay the postage of letters addressed to him, or to write on one sheet without envelope, as may suit their convenience. His knowledge of the subject is very limited, being confined chiefly to the few works which were published before 1837, the essential part of which are to be found in Mr. Church's valuable little work, and to a very brief and imperfect experience.

Any rich deep loam will produce large beets, and any well pulverised soil will yield good sugar. I think it may safely be affirmed, that the 15th of May is early enough, and the 15th of June late enough, to sow beet seed. On the subject of transplanting, they should be thinned out when 3 or 4 inches high, leaving 10 or 12 inches between the plants, and in no case should two plants be left together. The plants pulled up may be again set out in rows. Select the straightest roots and place them carefully in holes made with a sharpened stick deep enough to admit the whole length of the root, and not to curl or bend it. The extremity is by no means to be cut off or lacerated, as recommended by many; this will inevitably cause the root to send forth fibres and grow crooked, instead of keeping its straight, long and solid form; when there are fibres and crooked, the earth sticks to them in harvesting, and they are cleaned with great difficulty, besides being light, and containing far less of the saccharine matter than the fair, long, straight, regular roots.

The principle of transplanting is generally considered to be laborious and expensive, particularly as the beets removed seldom do so well as those which remain. Nevertheless, there are not wanting among the scientific, those who believe it the best way of cultivating the beet. Mr. Chaptal recommends the practice of sowing in garden beds a nursery, (en pepiniere,) and transplanting all the roots (repiquage en plein.) A man will easily set out 2000 plants in a day on ground properly prepared, and a boy might do as much.

H. O. APTHORP.

To make fire and water proof Cement.—To half a pint of vinegar add the same quantity of milk; separate the curd, and mix the whey with the white of five eggs; beat it well together, and sift into it a sufficient quantity of quick lime to convert it to the consistency of a thick paste. Broken vessels mended with this cement, never afterwards separate, for it resists the action both of fire and water.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 50	1 75
CATTLE, on the hoof,	100lbs	—	9 00
CORN, yellow	bushel.	94	95
White,	"	90	91
COTTON, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana 20a21-Alabama	"	—	—
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's,	"	—	—
Super How. st. in good de'd	"	8 75	9 00
" wagon price,	"	—	—
City Mills, super,	"	8 25	8 75
" extra,	"	8 50	9 00
Susquehanna,	"	9 00	—
Rye,	"	6 00	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,	bushel.	6 00	6 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	—	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	12 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	—	6 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	50	51
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	1 12	—
PLASTER PARIS, in the stone, cargo,	ton.	3 00	—
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	87	—
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	2 50	3 00
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 50	1 80
Red, best,	"	1 60	1 70
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls.	gallon.	—	35
" in hhds.	"	—	34
" wagon price,	bbls	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 50	—
WOOL, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do.	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	—	12½
Shoulders,	"	—	10
Middlings,	"	do	do
Assorted, country,	"	8½	9
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,	"	16	20
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	5 00	7 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 06	2 12½
CHOP RYE,	"	1 75	1 87½
EGGS,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,	"	7 00	—
Herrings, salted, No. 1,	"	2 87	—
Mackerel, No. 1, ————No. 2	"	8 00	9 00
No. 3,	"	—	4 50
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,par	VIRGINIA.	
Branch at Baltimore,....do	Farmers Bank of Virgin. 2	
Other Branches,.....do	Bank of Virginia,.....do	
MARYLAND.	Branch at Fredericksburg do	
Banks in Baltimore,....par	Petersburg,.....do	
Hagerstown,.....¾a	Norfolk,.....do	
Frederick,.....do	Winchester,.....do	
Westminster,.....do	Lynchburg,.....2½	
Farmers' Bank of Mary'd, do	Danville,.....do	
Do. payable at Easton,... 1	Bank of the Valley,.. 2	
Salisbury,.... 2 per ct. dis.	Branch at Romney,... 2½	
Cumberland,..... 3	Do. Charlestown, 2	
Millington,.....do	Do. Leesburg,..... 2	
DISTRICT.	Wheeling Banks,.... 4	
Washington, } Banks, ¾p.c.	Ohio Banks, generally 6a7	
Georgetown, }	New Jersey Banks gen. 5	
Alexandria, }	New York City,..... 1	
PENNSYLVANIA.	New York State,..... 3a4	
Philadelphia,.....¾a	Massachusetts,.....3a3½	
Chambersburg,..... 1	Connecticut,..... 3a3½	
Gettysburg.....do	New Hampshire,.... 3a3½	
Pittsburg,..... ¾a	Maine,..... 3a3½	
York,..... 1	Rhode Island,..... 3a3½	
Other Pennsylvania Bks. 4	North Carolina,..... 6	
Delaware [under \$5]... 6	South Carolina,..... 8a10	
Do. [over 5]..... 2	Georgia,.....do	
Michigan Banks,.....10	New Orleans..... 15	
Canadian do.....10		

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs. JOHN T. DURDING & CO. je 27 4t Fronting Grant and Ellicott sts.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis. JONATHAN S. EASTMAN.

Feb. 14

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive iron Foundry. Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Manure Forks, Shovels, &c.
English Corn Hoes	Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Superior American made Casteele Hoes, with handles	Liberal discount made to those who purchase to sell again.
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention. J. S. EASTMAN.

HARVEST TOOLS, &c.

Grain and Grass SCYTHES of most approved stamps—GRASS SNEATHES, with Scythes and Hangings complete; GRAIN CRADLES, 4 to 8 fingers, with warrant, ed scythes attached; Dutch and American SICKLES; SCYTHE STONES and STRICKLES, for whetting Scythes, BRAMBLE SCYTHES and HOOKS, for cutting briars and bushes; Mowers' and Cradlers' Hammers, Hay and Grain RAKES, Steel spring HAY FORKS.

And constantly kept for sale, PLOUGHS of various patterns, Cultivators for corn and tobacco, Wheat Fans, common and patent CORN SHELLERS, Cylindrical and common STRAW CUTTERS, Drills Machines for planting corn, beans, turnip seeds, &c.

Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO. June 6 4t

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 4½ inches high, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to EDWARD P. ROBERTS, Ap. 18. 4t. Baltimore, Md.

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THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

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Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

AMERICAN FARMER ESTABLISHMENT.

BALTIMORE: TUESDAY, JULY 18, 1837.

While on a visit of business to the eastward a few days since, we availed ourself of the polite invitation of our old friend, Mr. John Barney, to visit two of his farms, the first of which is situated in what is termed in Philadelphia, the *Neck*, the other lies on *Tinicum Island*. The first is an estate recently belonging to the late Mr. Stephen Girard, the which falling to his relatives as residuary legatees, was sold, and Mr. B. became the purchaser. Its location is a few miles below the country residence formerly occupied by Mr. Girard himself, in the midst of a cluster of the most fertile estates that the eyes of man ever alighted upon. Since Mr. Barney got his title, which was in September last, he has really affected wonders in the way of improvement. Old fences have disappeared and new ones succeeded them—a comfortable farm house, barn, stable, sheep shed and yard, with all their respective conveniences, have sprung up and contribute much to give effect and interest to the scene. At the time we were at this place the hands were engaged in hay harvest, and being pleased with the dense bodies of timothy, herds grass and white clover that fell before the implements of the mowers, we took occasion to inquire how the meadow had been set, and were surprised to learn that it had been seeded by simply foddering the cattle on the ground, changing their position from day to day until the whole meadow had been gone over. We say we were surprised, because, from the cleanliness of the hay from weeds, we were disposed to profit by his good example, in putting down a small meadow the coming summer, or autumn. Those who have not seen those fine lands of which we are now discoursing, when clad in grass ready for the scythe, and who may have been used to looking on meadows of ordinary fruitfulness, can form no idea of the luxuriant vegetation that here teems in every direction. Here we saw timothy, wheat

and oats, each overtopping the fences in height, and Rye still more vaulting in its altitude. In fact, the whole country round, as far as the eye can reach, is a perfect garden spot of the very richest alluvial mould, the depth of which the spade or plough of man never traced. Besides the other improvements, to which we have alluded, Mr. Barney has made several extensive ditches, by which he has not only drained his meadow, but reclaimed a number of acres of land of inexhaustible fertility, which are already putting on coats of white clover, herds grass, and other varieties of artificial grasses; and in another year we doubt not that these intruders of civilization—which are amongst the surest indications of perfect cultivation—will have entirely supplanted those of native growth.

Having mentioned the barn and its appurtenances, we cannot omit stating that we were gratified to find, that our old friend, with his accustomed sagacity, has substituted, in the main, the old fashioned racks by capacious troughs to feed his hay from, an arrangement so much more economical and convenient, that one wonders why any one should have the former contrivance about his premises. Of this we are certain, that no one who knows what he may be about, will hereafter think of fixing up racks in any new stable he may construct.

The sheep-yard of Mr. Barney consists, of a long shed on the north, to protect his flock from its piercing winds, opening to the south. In the yard immediately in front of the shed, he has small racks and troughs erected to feed out of—the whole is enclosed by a board fence about seven feet high; the yard itself comprises about the third of an acre, around which he contemplates planting fruit trees to afford shade to his sheep, and add comfort to the occupants of the farm. Into this yard Mr. Barney's sheep are nightly driven, and as the gate is carefully locked, find security from dogs.

HIS STOCK.

Besides several fine native and Simms' milch cows, he has on this estate, the following full-bred Durhams.

Bull Defiance, 2 years old in August next. He is a beautifully formed animal, showing all the

fine points of his breed. He was sired by Bertram II. out of Ruby II. g. d. Ruby I. sent by Mr. Whittaker, of England, to Col. J. H. Powel: she was bought by Mr. Barney at the latter gentleman's last sale.

York Belle, a deep milking three year old, light roan, with red and white spots, or pied; she was raised by the Hon. Charles A. Barnitz, of York, Pennsylvania, is by Emperor out of Martha, bred by Col. Powel, she by Wye Comet, g. d. imported Laura.

Heifer *Daphne*, 2 years old in August, fashionable roan, bred by Mr. Barnitz, sire Emperor, dam Daphne, g. d. Coquette, bred by Mr. Powel, g. d. Fairy, g. g. g. d. Prize, g. g. g. d. Buckhorn. This young creature is of huge size, and bids fair from appearances to be a deep milker, possessing in an eminent degree all those points by which connoisseurs draw their conclusions of this propensity.

A bull calf, roan, out of Daphne, sire a bull raised by Col. John H. Powel.

Heifer calf out of *York Belle*, also by one of Mr. Powel's bulls.

A three year old red cow of fine form and points, with her first calf, and already a most generous contributor to the pail.

SHEEP.

Mr. Barney had a few days before our arrival brought up a lot of his Leicestershire or Bakewell lambs, and a few two years olds, from his estate in Delaware, and we are candid in the confession, that we have never seen a more beautiful flock. The lambs, as well as the old Bucks, were as fine specimens of this popular breed as the best judges need desire to see. They were sired in part by that fine ram which he sold, last year to Col. White of Kentucky, for \$200, and by a buck he had subsequently imported, which latter being still in Delaware, we did not see, but were assured by Mr. Barney, that he was one of the best he had ever owned. To prevent the ill consequences of breeding in and in, it is Mr. B's practice to import from England biennially the best buck he can obtain, without regard to price; by which means, together with his skilful keep, and judicious selection of breeding ewes, he has been enabled to establish himself in the good opinion of the public. As he breeds for

sale, persons wishing to procure good animals, can be gratified through him.

After inspecting his improvements and stock on this estate, we proceeded to his lower farm on Tinicum Island, which is exclusively occupied for purposes of grazing. This farm consists of 150 acres of reclaimed alluvial soil of the very best kind, covered with clover, herds and green grasses. On about as many acres he had 96 head of cattle fattening for market; the rest of the farm is reserved for mowing. Notwithstanding Mr. Barney had a bullock on every acre of the grazed lands, the cattle are unable to keep down the luxuriant verdure with which his meadows are carpeted, and there are many parts of each field that will yield average crops of hay, it being his intention to mow them. The surest sign of plenty we could desire, we beheld,—ample stacks of old hay left from last winter and spring's feeding.

After dining, we took a ride over to the Schuylkill, and were highly pleased at the prospect of fruitful harvests that every where presented itself. Indeed, during our absence, we passed over an extent of country of several hundred miles, and in all directions saw the unerring indications of good crops, and had ample cause to offer up our thanks that our land had again been blessed by Providence.

We cannot omit to mention the *gates* we found at Mr. Barney's upper farm, one of which, is the entrance to each enclosure. Instead of the frames being of heavy timber as is the old custom of making them, they are formed by two pieces of half-inch plank, thus making an equally durable and much lighter gate than the one in use. We have often thought that the immense weight of the old fashioned gates contributed largely to their wear and tear, and are pleased to find our old friend has adopted his present improvement.

ORANGE FARM.

We paid a visit some few days since to this establishment, and were happy to find under its present manager, Mr. Keys, a Pennsylvanian, that it has resumed its wonted appearance. The grass, which was then being mowed, was heavy, and most of it remarkably clean, Mr. Keys having taken the laudable precaution to pull up those pests of meadows, the Carolina pink and St. John's-wort, and we doubt not, ere another season shall have elapsed, that he will have expelled them all from his fields. The operation of pulling up such numerous enemies, as are those weeds, is a tedious one, but in a meadow already set in grass, it is the only effectual one, and the man who has the

courage to undertake the task deserves the thanks of all friends of cleanly husbandry; for there is nothing surer, than that if they be left undisturbed in possession of a portion of the soil, they will, in two or three years at furthest, expel every spear of wholesome grass. The hay which Mr. Keys had already cured, looked well and exhaled a fragrance as aromatic as a rose.

The crop of rye, which had been cut, was in stacks in the field, and proved by their bulk, the immense length of the straw and heads, and weight of the grains, that a very heavy crop had been harvested. The corn field, consisting of about thirty acres, was as clean as a new penny, the plants thrifty, in fine growing health, with leaves as darkly green as the sea itself—in fine, we say it without disparagement to the crops of others, that it is the best *field* of corn we have seen during the season, though we have travelled some six hundred miles, and were not remiss in observation.

The truck patches of potatoes and pumpkins, as well as the buckwheat and oats, were each in fine order, promising to make fruitful returns for the labor and means respectively expended on them.

This fine estate, lies about three miles from our city, in an eastern direction, and is owned by Samuel W. Smith, Esq. who gives to its management personal supervision. It was formerly owned by his respected father, the hon. Robert Smith, under whose care it gained great celebrity as a dairy farm. Of late, its present owner has changed its character, so far as the nature of its business is concerned; but from the evidence of sagacious management we saw in every field, its fame for being well conducted has not been impaired.—With ample means and enthusiastic devotion to the pursuits of agriculture, Mr. Smith spares no pains in labor or manures to render Orange Farm a specimen of good culture. While he has been liberal in his application of animal manures, he has been equally so with *lime*, so that in his system of improvement he has looked both to the present and the future,—a plan too often overlooked by those who can only see their interest in what will conduce to momentary advantages—a policy most short-sighted and unwise, and which has tended more to impoverish the land of our country than any thing else. We are always pleased to see gentlemen of fortune, manifesting by their example their enlarged views of the solid advantages to be derived from laying the foundation of lasting improvements of the soil, and not stopping to take counsel from those, who in their adherence to old

customs, however bad, in agriculture, act upon the mistaken notion, for we will not call it principle, that the earth is an exhaustless body, from which you may *draw all* and *give nothing*. Like the human system, to be preserved in health and vigor, it must be nourished—it must be fed—nay, it must be supplied with a *matter* capable of converting whatever alimentary substance which may be thrown in to it, into one which the delicate vessels of growing plants can feed upon—that matter is *lime* in some of its forms, and it gives us much satisfaction to find that Mr. Smith has made so generous a use of it, and thereby established his reputation as an enlightened agriculturist.

THE TURNIP FLY.

While at Mr. Barney's upper farm, he showed us a patch of Ruta-baga, which he had rescued from the ravages of the fly by the use of fish oil. His mode of applying it was this:—the oil being placed in a vessel, he dipped a rag into it and sprinkled it over the plants. He had previously tried sifting lime over them without effect, as was evinced by the many rents in the first leaves; the aroma of the oil being repulsive to the delicate sense of smell of these little mischief doers, they instinctively leave the plants as the oil is cast upon them. Another good is effected by the use of it—it acts as a powerful manure, and pushes the plant rapidly into the rough leaf state, when it is beyond the reach of harm from this insect.

It is the opinion of Mr. Barney, that a gallon of oil, judiciously used, will go over an acre of turnips; but should it take four, the expense should be no object with any one desirous of securing a crop of turnips; for if it will drive off the fly, there can be no question that it will also expel *grass-hoppers*, which, of late years, have proved equally as destructive to the turnip plant as the fly itself.

We have seen it often stated that by boring a tree, inserting a portion of quicksilver or sulphur in the hole, and plugging it up again, that it would exempt it from the caterpillar and other insects. While in Philadelphia lately, we were shown an Elm tree, on which the experiment had been doubly tried,—that is, two holes had been bored in it. In the one, quicksilver had been placed, and in the other flour of sulphur, and when we saw the tree a week ago, not a single living leaf was on it—its insidious foe had been as ri with his mischief as ever.

SAW DUST FOR PACKING PLANTS.

To the Editor of the Farmer and Gardener:

I have noticed in the agricultural papers, some accounts of the loss of a large number of *Morus Multicaulis* imported from France during the past spring, occasioned by neglect or inefficiency in packing. I presume the material commonly used for preserving the vitality of plants is moss. The kind denominated *Sphagnum* is the best for that purpose, as it retains moisture for a length of time, and is not liable to fermentation.

The moss however, besides that it is not always readily accessible, is, I believe, inferior to saw-dust in both the qualities adverted to. When mixed with earth in equal proportions, and with a proper allowance of water, it will be many months before it can become dry, when securely closed in a box. By the way, boxes should be used in preference to mats—in all cases at least in which plants are impatient of removal; or when they are to be transmitted to a considerable distance.

Some years ago I received a box of plants from the south, which were put in the fall and sent to Charleston to await the sailing of a packet. It lay there for months, and did not reach me until quite late in the spring: but on opening it, I found the contents in a fine *growing* condition.

About the first of this year I put up two boxes in the same manner—one to be sent to Boston, the other to Columbus in Ohio. On the 23d of May, the former was opened, and the plants were in a state of perfect preservation; having lain undisturbed for nearly five months. In the other case, though the box was small, and almost as late in reaching its destination, yet the plants were in a condition equally good.

I have reason to believe that many of the losses sustained in the removal of trees and plants to a distance,—and they are not few—are to be ascribed to the imperfect manner in which the packages are made up. An accidental delay, or unexpected change of weather, may materially retard the operation of planting; and if such occurrences are not guarded against by the care of the nurseryman, disappointment must frequently be the lot of his customers.

A HORTICULTURIST.

SYMPATHY OF ANIMALS.

Animals which are unable to associate with their own species will sometimes form most strange attachments. I had last year a solitary pigeon, being unable to procure a mate, attached itself to an old barn-door fowl, whose side it seldom left at night, roosting by him in the hen house. The cock seemed sensible of the attachment of the pigeon and never molested it, or drove it from him. I had also a tame hedge-hog, which nestled before the fire on the stomach of an old lazy terrier dog, who was much attached to it, and the best understanding existed between them. I have also seen a horse and pig associate together, for want of any other companions, and Mr. White in his *Natural History of Selborne*, mentions curious facts of a horse and a solitary hen spending much of their time together in an orchard, where they saw no creature but each other. The fowl would approach the quadruped with notes of complacency, rubbing herself gen-

tly against his legs, while the horse would look down with satisfaction, and move with the greatest caution and circumspection, lest he should trample on his diminutive companion.

At Aston Hall, in Warwickshire, I remember to have seen a cat and a large fierce bloodhound who were always together, the cat following the dog about the yard, and never seemed tired of his society. They fed together, and slept in the same kennel. A gentleman residing in Northumberland assured me that he had a tame fox, who was so much attached to his harriers, and they to him, that they lived together, and that the fox always went out hunting with the pack. This fox was never tied up, and was as tame, playful, and as harmless as any dog could be. He hunted with the pack for four years, and was at last killed by accident.

But a most singular instance of attachment between two animals, whose natures and habits were most opposite, was related to me by a person on whose veracity I can place the greatest reliance. Before he took up his abode at Hampton Court, he had resided for nine years in the American states, where he superintended the execution of some extensive works for the American government. One of these works consisted in the erection of a beacon in a swamp in one of the rivers, where he caught a young alligator. The animal he made so perfectly tame, that it followed him about the house like a dog, scrambling up the stairs after him, and showing much affection and docility. Its great favorite, however, was a cat, and the friendship was mutual. When the cat was reposing herself before the fire (this was at New-York) the alligator would lay himself down, place his head upon the cat, and in this attitude go to sleep. If the cat was absent, the alligator was restless; but he always appeared happy when the cat was near him. The only instance in which he showed any ferocity was in attacking a fox, which was tied up in the yard. Probably, however, the fox resented some playful advances which the other had made, and thus called forth the anger of the alligator. In attacking the fox, he did not make use of his mouth, but beat him with so much severity with his tail, that had not the chain which confined the fox broken, he would probably have killed him. The alligator was fed on raw flesh, and sometimes with milk, for which he showed a great fondness. In cold weather he was shut up in a box, with wool in it; but having been forgotten one frosty night, he was found dead in the morning. This is not I believe a solitary instance of amphibia becoming tame and showing a fondness for those who had been kind to them. Blumenbach mentions that crocodiles have been tamed; and instances have occurred under my own observation of toads knowing their benefactors, and coming to meet them with considerable alacrity.

Col. Montague, in the Supplement to his *Ornithological Dictionary*, relates the following singular instance of an attachment which took place between a China goose and a pointer who had killed the mate. The dog was most severely punished for the misdemeanor, and had the dead bird tied to his neck. The solitary goose became extremely distressed for the loss of her partner, and only companion; and probably having been attracted to the dog's kennel by the sight of her

dead mate, she determined to persecute the dog by her constant attendance and continual vociferations; but after a little time a strict friendship took place between these incongruous animals.—They fed out of the same trough, lived under the same roof, and in the same straw bed kept each other warm; and when the dog was taken to the field the lamentations of the goose were incessant.

Some animals of the same species form also strong attachments for each other. This was shown in the case of two Hanoverian horses, who had long served together during the peninsula war, in the German brigade of artillery. They had assisted in drawing the same gun, and had been inseparable companions in many battles. One of them was at last killed; and after the engagement the survivor was picqueted as usual, and his food brought him. He refused, however, to eat, and was constantly turning round his head to look for his companion, sometimes neighing as if to call him. All the care that was bestowed upon him was of no avail. He was surrounded by other horses, but he did not notice them; and he shortly afterwards died, not having once tasted food from the time his former associate was killed. A gentleman who witnessed the circumstances assured me that nothing could be more affecting than the whole demeanour of this poor horse.—*Jesse's Gleanings.*

CURING CLOVER HAY.

Clover hay should never be scattered out of the swath, because in addition to the labor in scattering and again raking up, the hay is thereby greatly injured. Indeed, if the weather be favorable for curing, neither timothy nor any other kind of hay should be scattered, because the less any grass is exposed to the sun and air in the process of curing, the greater will be the value of the hay, and the less the labor required.

Let the clover lay in the swath untouched, until about two-thirds of the upper part be sufficiently cured, which in good weather, will, if the swath be tolerably heavy, be effected in eight or ten hours; if the swath be light, in a proportionably shorter time, when thus far cured, turn the swath bottom upwards with the fork, an operation speedily performed. Let it then lie exposed to the sun until the under side be cured, which will be, according to the thickness of the swath, in from four to six hours, then throw three swaths together in windrows, and commence hauling in, the waggon running between two windrows and loading from each. It can hardly be necessary to observe, that all these operations must be performed after the dew has dried off. It is to be recollected that clover will keep with less drying than almost any other grass. A common test is, to take up a bunch of hay and twist it; if no juice exudes, the hay may be hauled in with safety,—we have often hauled in clover cut in the morning, in the evening, and always the succeeding day, unless prevented by bad weather,—sprinkling every layer of hay with salt, at the rate of 12 or 15 lbs. to the ton, or interposing a layer of dry straw, from six to twelve inches thick, between every two layers of clover of the same thickness, we found a great preservative; and especially the latter mode will enable the farmer to put up hay in a far greener state, than

could otherwise be done with safety. Besides this advantage, the straw interposed between the layers of hay, by absorbing its juices, will be rendered much more valuable as provender, and if salt be sprinkled on the hay will be greedily consumed both by cattle and horses. From the great quantity of this grass produced on an acre, its highly nutritive quality, the ease with which it is cut and cured, farmers will find that clover hay is the cheapest food on which they can keep their stock in good order during the winter. If put up in good order during the fall, sheltered from bad weather, and salted, both horses and cattle will keep fat on it alone throughout the winter, without the aid of grain unless when worked.

The prevalent notion, of the difficulty of curing clover hay, is entirely erroneous. In a climate like ours, there will seldom be found any; in a wet and cool climate, like that of England, the difficulty may exist to some extent, as clover when put in cocks will not resist rain as well as timothy and some other grasses; but in the course of fifteen years experience, we have seldom lost any or had it much injured by the weather, indeed we have found it comparatively easier to save clover hay than corn blades, and as 3 or 4 tons of the former, with the aid of plaster, can be made at less expense, than one ton of the latter, the farmer must be blind indeed to his own interest, who does not take care to provide himself with at least as much clover, as will furnish an abundant supply of provender for his stock.

Clover should be cut for hay when about one-half the heads have become of a brown color.—If cut earlier, it is believed the hay will not be so nutritious; if later, the stems will have become harder, and the grass be on the decline. For hogs, however, and young stock, it will be advisable to cut some so soon as it is in full bloom; when cut in this state and salted, hogs are very fond of it, and it is believed might be chiefly wintered on it, if otherwise carefully protected from inclement weather. At all events by the use of it as a food for hogs in part, a great saving of corn may be affected.

When the farmer can do it he will find a great advantage in providing himself with long, narrow and high sheds, open at least on the south side for the preservation of his clover hay, and when hauling it in, to begin at one end, and spread a layer of hay along the whole length of the shed, and then repeat the same process; by this means he will be able to put up his hay, in a much greener state than could safely be done, if put either in a stack or mow, and as yet there are but few persons in this country sufficiently expert in the art, as to ensure its preservation. In narrow sheds, one load is considerably dried before another is thrown on it, and when the sheds are filled, the narrowness of the bulk being so much greater, there is far less danger of injury to the hay by heating.—*Tennessee Farmer.*

ON THE GENERAL PRINCIPLES OF REARING, MANAGING, AND FEEDING DOMESTIC ANIMALS.

Immediately after the birth of every animal, even of such as are domesticated, the rudiments of its education, as well as its bodily nourishment, are necessarily given by the mother. For this purpose the latter should, during her pregnancy,

have been daily protected against all extremes of temperature, well provided with shade and shelter, and abundantly supplied with food and water. When the period of gestation arrives, she should, in general, also be separated from the rest of the flock or herd, and by whatever means the case may demand, kept comfortable and tranquil.

After the birth, the first interference on the part of man should be that of supplying the mother with food of a light and delicate quality, compared to that which she had been in the habit of using, and also of administering the same description of food to the offspring, so far as it may by its nature be able to use it. The gentlest treatment should accompany these operations; and the opportunity taken of familiarizing both parent and offspring with man, by gently caressing them, or at least, by familiar treatment on the part of the attendant.

As the animals increase in size and strength, they should have abundance of air, exercise, and food, according to their nature; and whatever is attempted by man in the way of taming and teaching, should be conducted on mild and conciliating principles, rather than on those of harshness and compulsion. Caresses, or familiar treatment, should generally be accompanied by small supplies of food at least at first, as an inducement to render the animal submissive to them; afterwards habit will even in the inferior creation, render the familiarities of man agreeable to them for their own sake; but even then to keep up this feeling, small portions of select food should frequently be employed as a reward. By contrasting this method with that of taming or teaching animals by fear or compulsion, the advantages of the former mode will be evident.

Interest is the grand mover of animals, as well as man. In taming by fear, all the interest which the animal has, is the avoiding an evil; in taming by caresses and food, it is the attainment of enjoyment. The most extraordinary results are recorded as having been obtained by the mild mode with almost every species of animal on which it has been tried; to this may be advantageously joined, in the more powerful animals, hunger and fatigue. "The breeder Bakewell, Surgeon Hunt informs us, at an advanced period of life, not only conquered a vicious restive horse, but, without the assistance of either grooms or jockies, taught this horse to obey his verbal orders with as great attention as the most accomplished animal that was ever educated at Astley's school. Bakewell was accustomed to say, that his horse could do every thing but speak. The method which he took to conquer this vicious animal was never told, even to his own domestics. He ordered his own saddle and bridle to be put on the horse which at that time was thought to be ungovernable, when he was prepared for a journey of two or three hundred miles; and, that no one might be witness to the contest, he led the horse till he was beyond the reach of observation; how far he walked, or in what manner this great business was accomplished, was never known; but when he returned from his journey, the horse was as gentle as a lamb, and would obey his master's verbal orders on all occasions. When what are called irrational animals are taught such strict obedience to the command of a superior order, it is in general supposed to be the effect of fear; but

Bakewell never made use of whip or spur. When on horseback he had a strong walking stick in his hand, which he made the most use of when on foot; he always rode with a slack rein, which he frequently let lie upon the horse's neck, and so great was his objection to spurs, that he never wore them. It was his opinion that all such animals might be conquered by gentleness; and such was his knowledge of animal nature, that he seldom failed in his opinion, whether his attention was directed to the body or the mind."—*Agr. Mem. page 127.*

INDIAN CORN.

AN ESSAY ON INDIAN CORN

DELIVERED BY

PETER A. BROWNE, Esq. L. L. D.

Professor of Geology and Mineralogy in Lafayette College, Pa. Professor of Geology in the Cabinet of Natural Science in Montgomery county; member of the Geological Society of Pennsylvania; and corresponding member of the Cabinet of Natural Science of Chester county, Pennsylvania, read before the latter Society, April 22, 1837.

(Concluded.)

VIII. Is the Indian corn capable of being improved by culture?

Thomas N. Baden, Esq. who resides near Nottingham, Prince George County, Maryland, has demonstrated that the Indian corn can be greatly improved, both in quality and quantity, by cultivation. I will first give you his own words.

NEAR NOTTINGHAM, PRINCE GEORGE'S CO. }
January 26, 1837. }

Sir—I received yours of the 14th, making enquiry respecting the "Maryland corn," which you understood I had raised. I have the pleasure to say, that I have brought this corn to its high state of perfection, by carefully selecting the best seed in the field for a long course of years, having special reference to those stalks which produced the most ears. When the corn was husked, I then made a re-selection, taking only that which appeared sound and fully ripe, having a regard to the deepest and best color, as well as to the size of the cob. In the spring, before shelling the corn, I examined it again, and selected that which was the best in all respects. In shelling the corn, I omitted to take the irregular kernels at both the large and small ends. I have carefully followed this mode of selecting seed corn for twenty-two or twenty-three years, and still continue to do so. When I first commenced, it was with a common kind of corn, for there was none other in this part of the country. If any other person undertook the same experiment, I did not hear of it; I do not believe others ever exercised the patience to bring the experiment to the present state of perfection. At first, I was troubled to find stalks with even two good ears on them, perhaps one good ear and one small one, or one good ear and a "nubbin." It was several years before I could discover much benefit resulting from my efforts; however, at length the quality and quantity began to improve, and the improvement was then very rapid. At present, I do not pretend to lay up any

seed without it comes from stalks which bear 4, 5, or 6 ears. I have seen stalks bearing eight ears. One of my neighbors informed me that he had a single stalk with *ten perfect ears on it*, and that he intended to send the same to the museum at Baltimore. In addition to the number of ears, and of course the great increase in quantity unshelled, it may be mentioned, that it yields much more than common corn when shelled.—Some gentlemen, in whom I have full confidence, informed me they shelled a barrel (ten bushels of ears) of my kind of corn, which measured a little more than six bushels. The common kind of corn will measure about five bushels only. I believe I raise *double, or nearly so*, to what I could with *any other corn I have ever seen*. I generally plant the corn about the first of May, and place the hills five feet apart each way, and have two stalks in a hill. I can supply you with all the seed you may need, and I suppose I have now in my corn house fifty, and perhaps more stalks, with the corn on them as it grew in the field, and none with less than *four*, and some *six or seven* ears on them. I will with pleasure send you some of these stalks, and also some seed corn, if I can get an opportunity.

Early last spring I let George Law, Esq., of Baltimore city, have some of this seed corn: he sent it to his friend in Illinois, with instructions how to manage it. A few weeks since, he informed me that the increase was *one hundred and twenty bushels on an acre*; that there was no corn in Illinois like it, and that it produced more fodder than any other kind. I have supplied many friends with seed corn, but some of them have planted it with other corn, and will, I fear, find it degenerate.

I have lately been enquired of if this corn is not *later* than other kinds? It is rather *earlier*; certainly *not later*. Corn planted in moist or wet soils, will not ripen so quick as that which is planted on a dry soil. In the former, there will be found more dampness in the cob, although the kernel may appear equally ripe in both. In the two last years, the wet seasons have injured much corn that was too early "lofted," or housed.

I believe I have answered most of your enquiries. I hope I have not exaggerated—I have no motive for doing so. I raise but little corn to sell, as tobacco is my principal crop. Should I fail to send you some seed this spring, I will next summer gather some stalks with the corn, fodder, and tassels, as they grow, and send to you, that you may judge yourself of the superiority of this over the common kind of corn.

Yours, &c.

THOMAS N. BADEN.

In order to form a proper estimate of the exceeding utility of adopting the plan of Mr. Baden, let us take a case—for instance, the fine county of Chester in Pennsylvania, to which we had reference before when speaking of the quantity of Indian corn raised in the United States. If instead of thirty bushels to an acre, (which was stated to be the average crop, Chester county could produce one hundred and twenty bushels to the acre, her annual produce in this article alone, would be fourfold; and instead of exporting three hundred and twenty thousand bushels, the farmers of Chester

county would send to market one million two hundred and twenty-eight thousand bushels annually!

And if Chester county, in point of soil and agriculturists, is a fair sample of our state, and in the other counties there could be a similar increase, there is scarcely a possibility of calculating the immense advantages that might thus be derived from the careful cultivation of this single plant!

But the calculation does not stop here: if Mr. Baden's *principles* be correct, they apply to all other grains as well as they do to Indian corn, which might by care and attention be made to double, treble, and quadruple their present crops! Is it not worth while to try the experiment upon other grains? And will not the intelligent farmers of our country follow up the experiment of Mr. Baden upon our favorite plant?*

IX. Its cultivation compared with other grains.

Mr. Taylor asserts that Indian Corn produces more food for man, beast, and the earth, than any other farinaceous plant.

That Indian Corn in a proper climate for it, produces more farinaceous matter to the acre than wheat, he proves as follows:

"The highest product of Indian Corn in the United States is one hundred bushels to the acre, whereas the highest product of wheat is sixty bushels per acre. Fifty bushels of corn to the acre is invariably produced by land well manured, and well cultivated; whereas half that crop of wheat is extremely rare, and in districts where the average crop of wheat is five bushels, that of Corn is fifteen bushels to the acre."

Mr. Taylor also contends that Indian Corn is the least impoverishing crop. The corn stalks infinitely exceeds wheat straw in bulk, weight, and capacity for making food for the earth, and English farmers consider wheat straw as their most abundant resource for manure. But to the

* The rows of grain found upon the cob in the spike or ear of corn, are always *even*. An anecdote is told of a negro slave belonging to Virginia, who, being at work shelling corn, enquired of his master, if there were no ears of corn that had odd rows. His master gave for answer, that if he would bring him an ear of corn with an odd row, he would give him his freedom. The negro made no remark; but a year or two afterwards, he reminded his master of his promise, and produced an ear that had nine rows. The Virginia gentleman regarded the ear with astonishment—counted it several times before he could believe the testimony of his own eyes; at length he demanded of the negro how it had came to pass. If I tell massa, said the fellow, he will not give me my freedom. Upon being assured that he should have his freedom at all events, he confessed that he had, in the earliest state of its growth, unclosed the husk, and cut out a row, after which he closed it up again, and it presented, when ripe, the unnatural appearance of a spike of corn with an odd row. He had, it appeared by his own confession, been trying this experiment upon many plants before he could succeed. His master gave him his freedom, but kept the odd ear of corn a great many years to shew to his acquaintances, to whom he was fond of relating the anecdote.

stalks of Corn must be added the blades, tops, shucks, and cobs, each of which will nearly balance the litter bestowed on the land by wheat.—He further contends that the quality of the sustenance thus returned to the earth by Indian Corn is of a better quality than that of wheat, and that it incurs less risk of loss by evaporation. Wheat straw he says he has known to lose two-thirds of its first weight. The shucks and cobs of Corn lose nothing by evaporation. The rind preserves the stalk and the top from the operation of the atmosphere, which upon the blades has only the effect it has upon grass, turning them into hay.

X. The different uses to which the Indian corn can be applied, also recommend its cultivation to the agriculturist.

1. The *stalk* contains a large portion of saccharine matter. Attempts have been made in France to extract this matter for the purpose of making sugar; but the modes hitherto used have not been crowned with success, owing to the expensiveness of the process.

According to Humloldt this manufacture is carried on with complete success in Mexico.

The *stalk, top, and leaves* are used for fodder for cattle, when dried, and sometimes the whole plant is used for the same purpose in a green state. When this is intended, it is sowed broadcast and cut before it goes to seed.*

* A story is told in Virginia, but I will not vouch for its accuracy. It is a common practice on the plantations to give the slave a little spot of ground, which he is allowed to cultivate for his own profit. On one of these patches an old negro had planted Indian corn, for what is called "roasting ears;" and as he tended it with great care, it was in the most flourishing condition, and promised an abundant harvest. It was the pride of his heart—the object of his thoughts by day, and his dreams by night. He had already in his own mind calculated the profits it would yield, and had determined upon some of the fine things he would purchase with the proceeds. It so happened, however, that just about the time that the female flowers were ready to receive the fructifying properties of the male ones, the owner of the little corn field had an unfortunate quarrel with an old crone whose lodge was in the neighborhood of his favorite little spot. His antagonist was noted for having the free use of her tongue, and on this occasion was more eloquent than she was wont. After venting upon the man all the maledictions she could recollect or invent, proceeded to curse his favorite patch of corn, and in the most solemn manner declared, that it should not yield him a single ripe ear. Strange to tell, when the time of harvest arrived, the poor slave found that the malicious prophecy was true to the letter,—he had not a single perfect spike to serve him for seed the following year. Among the negroes this circumstance gained the old wench the fame of being a dealer with the devil; and ever afterwards the negroes in all the country round worshipped her through fear, as the Indians do evil spirits. But so much was she shunned, that the grass grew rankly before the door of her hut; and when "Aunt Molly" died at the age of ninety-six, the whole black population of the country

The *ashes* of the *stalk* contains a large proportion of alkali.

2. Of the *husks* a very beautiful paper is made in Italy.

3. The *cob* may be ground, and with or without the grain, used to fatten cattle. An oil is also extracted from the cob.

4. The *grain* is used as food for man and cattle.

It also yields oil:—"The oil of Indian corn is used in Cincinnati as a substitute for sperm or whale oil. It is said to produce an equal quantity of light, to be quite as transparent, and free from disagreeable odour, in addition to which, it is not subject to freezing, having resisted the greatest cold during the present season—say 6° below zero. The yield of oil is said to be half a gallon to the bushel, without destroying the qualities of the grain for distillation."—*Penn. Inq.*

5. It also yields *spirit*. My Kentucky correspondent informs me that he has known four gallons of high proof spirit to be distilled from a single bushel of Corn, of the yellow variety, spangled with red; the seed of which came from Hunterdon County, New Jersey.

The late Peter Miner, of Albemarle county, Virginia, made some experiments, of which the following have been communicated: He had ten bushels of meal of the *corn* and *cob* ground together, weighing 367 pounds, and ten bushels of *pure corn meal*, subjected to the process of distillation; and the result was, eighteen gallons of spirit from the latter, and thirteen from the former.—Now if the corn cobs had been destitute of all value, the product of the former, estimating the quantity of pure corn meal at five bushels, (which is the general rule, to allow one half in the bulk to the cobs,) ought to have been nine gallons only; but thirteen having been obtained, four of them must have been extracted from the cobs.

considered themselves as relieved from a heavy burthen.

How she effected her purpose she would never disclose; but the owner of the plantation, and indeed all well informed white persons, suspected her of having secretly stripped the plants of all the male flowers before the female ones were impregnated.

The point of this story will readily be perceived by the intelligent agriculturist, viz: that if they wish to cultivate Indian corn for *fodder alone*, or for making sugar, they can deprive it of the power of going to ear, and make it throw all the juices into the stalks and leaves.

POUDRETTE, *French mode of preparation; its value in France, &c. &c.*

We are enabled by the politeness of an intelligent French gentleman, to give useful information in relation to the mode of preparation, in Paris, of this valuable manure.

The material, the contents of privies, is taken beyond the limits of the city, into a large enclosure, with reservoirs into which the solid part is put, to the depth of 18 to 12 inches, when from one *tenth* to one *eighth* in quantity of *dry earth* is mixed with it—and then the mass is left to the influence of solar evaporation. The length of time required to carry it through the process of

preparation, varies from *one* to *two*, and sometimes even to *three* years—which renders it both tedious and expensive; yet so highly is the article valued, by the agricultural community, that the privilege of the *monopoly*, is sold by the city, to the highest bidder, for periods of *nine years each*; and companies are formed, consisting of intelligent and wealthy men, which compete for the privilege of monopoly. The present company pays to the city of Paris *one hundred and thirty thousand dollars* for the *exclusive* privilege of removing and using the contents of the privies—the company, of course, have the right to charge the proprietors a certain price for the removal.

The estimated value of the article may be readily understood by the prices paid in Paris, and the distance to which it is carried. The price varies from 6 to 8 francs the hectolitre, which is equal to about $9\frac{1}{2}$ cubic feet, or two and eight-tenths Winchester bushels; which will give about an average of 47 to 50 cents per bushel—and then it is transported from 60 to 100 miles from Paris, and even exported to the *West India Islands*.

Chaptal entertained a high opinion of this manure, and speaks of it as follows: "This pulverulent product is sought for by our Agriculturists, who acknowledge its good effects; let us hope, that becoming more enlightened, they will employ the fecal matter itself, as being more rich in nutritive principles, and abounding equally with salts; they can easily govern and moderate the too powerful action of this, by fermentation, or what is better, by mixing with it plaster, earth, and other absorbents, to correct the odor." The suggestions of Chaptal induced a distinguished chemist of Paris, in connexion with a friend of his, to undertake a series of experiments, to ascertain whether *Poudrette* could not be made of *equal quality*, without the necessary delay of *solar* evaporation, as in France; or by *artificial* heat, as in London,—which experiments were, we are satisfied, *altogether successful*; and the coadjutor and friend of that chemist is now in this city, and will undertake the superintendence and management of the scientific and mechanical department of a company in this city, for its manufacture, as soon as *five thousand dollars* more are subscribed, to provide the necessary outfit and buildings.

The general business of the company, will be under the superintendence and management of an active business man, who will give information and receive subscriptions at *this office*.

It has been ascertained that from 1500 to 2000 bushels may be made per day, in this city, from the materials which are now thrown away—and that it would be worth from 25 to $12\frac{1}{2}$ cents per bushel. Taking the lowest quantity and price, it would be worth over \$180 per day, for at least 250 days in the year, the average working time.

Of the improved process of preparation, we will say that it is simple when understood: it is completed in from 12 to 48 hours, by the addition of a preparation, or *compound of vegetable substances*, which disinfects it of, or allays the odor, *without deteriorating* the quality of the manure; aided by machinery which prepares it for use, by dividing it into particles while drying, from the size of a mustard seed to that of a hen's egg—or

it may be reduced to a powder and put into barrels, or made into cakes of any size and dried for transportation, and then ground for use.

The entire cost of outfit, including teams, apparatus, machinery, and buildings, for preparing fifteen hundred bushels per day, will be less than \$15,000: and \$6000 will commence it on the scale of 500 bushels per day. The capital to be entitled to one third of the profits, which will be over four per cent a month—and subscribers to the amount of \$500 to have the privilege of using the manure at half the market price.

N. Y. Farm.

THE MASON BEE.

One good lady took up her position within a foot of the sofa on which I was accustomed to lounge during the extreme heat of the day. I therefore could watch all her motions without any trouble. I copy here the memorandum made at the time:—"House completely built in three hours; diameter of the foundation circle, 6-8ths of an inch; height when completed 4-8ths. I could not decide whether more than one bee was occupied in the construction, because they are so much alike; but there never have appeared two at the same time." When the building was finished, it was left for the remainder of the day to consolidate, and it soon became quite hard and dry.

Next morning, as soon as the sun was up, I found the laborer of the preceding day arrive, and in her arms a long slender caterpillar. She approached the open door or chimney, but did not rest on it, for while hovering on the wing she contrived to push the head of the caterpillar into the hole, and then gradually, and by piecemeal to force in the whole body. As soon as this was fairly out of sight she took her departure, and in five minutes returned with another victim. I counted seven of these caterpillars pushed into the same building. The eighth time she returned without a caterpillar, but a load of clay, with which, in an instant she closed up the open door, and began to lay a new foundation. This she finished before noon, and left it to dry for the rest part of the day. Next morning I saw her bringing caterpillars, but did not remain to count them. I allowed the process to go on for four days, when, with a sharp table knife, I removed the first nest from the wainscot, and found the ova hatched, and the caterpillars, in whose bodies they had been deposited, nearly all destroyed by the young grubs. In the second the ova had not burst, and in the third the cell was quite crammed with the still fresh bodies of green caterpillars. I found in the huts that had not been disturbed, the wall broken on one side or other, and that when taken down they were quite empty. Here then, we find the insect first preparing a prison for the caterpillars in whose bodies she deposited her ova for the purpose of being hatched, and which bodies also supply the young with food until able to destroy the wall of the building, and find nourishment elsewhere.—*Sir A. Halliday's West Indies.*

PROFITS OF COW KEEPING.

No branch of husbandry is more profitable than the keeping of cows, if properly managed. We have but few farmers in the state of Maine who make great profits by the dairy. Many farmers

among us are solicitous to improve their breeds of cows, and some raise considerable quantities of good roots, with which to feed them during the winter. This is all very good, so far; but what is the treatment of cows during the summer season, the time when all, or nearly all, the profits are obtained? Cows kept in dry, short pastures, in summer, will not be profitable to their owner, however much ruta бага, mangel wurtzel, or carrots, have been fed out to them during the winter. I believe it to be a fact, that cows generally, (some few exceptions) are shamefully stinted in their food during the summer, in our state, notwithstanding our grazing lands are excellent.

I believe that the most profitable mode of keeping cows through the summer is by soiling, or feeding them with grass in the barn or yard. This may frighten some farmers, and excite the ridicule of others; but I think it will be granted that he is the best farmer who realizes the greatest number of dollars and cents from a given quantity of land, with the least amount of labor. Many farmers pride themselves on raising great crops; and 100 bushels Indian corn have been raised on a single acre. This is a great profit, but I believe that 3000 bushels of ruta бага may be as cheaply raised, take one year with another, as 100 bushels of corn. Three thousand bushels of ruta бага will give about a bushel and a half a day, each to six cows throughout the whole year. It is easy enough to see that cows fed in this way will be in excellent condition, and yield immense quantities of butter and cheese.

The method of soiling as described by Dr. Dean, was to feed cows with new mown grass: an acre of rich ground, he says, will summer a number of cows. A little hay or grass will indeed be necessary at all times of the year, but I believe roots should be raised in great abundance, and be made the chief article for feeding milch cows throughout the year as far as practicable.—Cows do not generally yield great quantities of milk till June; but by supplying them liberally with roots they may be made to yield as much milk in March, April and May, as any part of the year, as farmers, whose cows calve early, and who have an abundance of roots, may make prodigious quantities of butter and cheese early in the spring.

Farmers in Europe and in this country have practised soiling their cattle during summer, and those who have had experience in this mode of summering, have declared it to be a much cheaper and more profitable mode than grazing.

Maine Farmer.

WASH YOUR WOOL CLEAN.

We have deemed it a duty to give a hint upon this subject, regularly as the time comes round for clipping the fleece. And we do it at this time because we think that many of our farmers are still in the habit of not properly cleansing the fleece as it should be, either through indifference or from an inclination to have it weigh as much as possible. Now we are anxious that you should have heavy fleeces and get a heavy price for them, but we are as anxious that the fleeces should be nothing but wool, and that of a good quality. It may be laid down as a general rule, that he who neglects to cleanse his wool thoroughly, loses more in price than would pay him for the little

extra trouble of doing it as it should be, besides suffering in reputation. The purchaser, always ready to seize upon any thing which will excuse him from giving more than he can possibly help, looks carefully to the appearance, and if it be dirty, will always diminish his price sufficient at least to keep himself on the safe side; and this diminution is always more than would pay for all the expense of having this work done properly.

Perhaps it may not be amiss to refer the reader to the plan of washing sheep recommended last year, viz: where there are not suitable natural conveniences to make a large vat,—we do not see why a large half hoghead would not answer, place it in the fall of some brook, and let the stream run into it, an orifice at the bottom allows the water to escape, though not so fast as it goes in, and the operator stands on the outside and performs the labor.

It is probable that, owing to the pressure of the times, the price of wool may vary from that of former years, but we would advise wool growers not to be frightened and murder all their sheep because the commercial horizon is a little cloudy. There will probably be but little imported, which will keep up the demand of American wool at some price or other, and we doubt not that the troubles of trade will become settled by another year.—*Maine Farmer.*

WASHING SHEEP—Bartholomew Nelson, esq. late of Augusta, now of Hallowell, remarkable for his plain, practical, common sense, observed in conversation, that he thought he had made quite an improvement in his mode of washing sheep.

Having a stream in his pasture, where he could raise a small head of water, he made a plank box, 8 feet long, 4 feet wide, and 3½ feet high, just below his dam, from which he conducted a stream of water into his box, sufficient to keep it full and running over at the lower end, besides a constant discharge from the bottom of the box through a 2-inch auger hole, to let off the sediment; this box or vat, he considered of fair size for four men to work at, standing on the outside, dry, while they washed their sheep, and then returned them to the flock in the yard, made of suitable size for the number of sheep to be washed. He thought this cheap establishment increased the comfort of his laborers, compared to wading into the water, and also that they could wash faster and cleaner, without bending so much, or exposing their clothes to be rent.

A number of neighbors might join in preparing such a convenient concern, where they could find suitable water; or one could build, and then rent the accommodation if he chose. Considering this information too good to be lost, and it being a good season to provide the little lumber necessary, I thought I would relate it as recollected.

I think he stated that three or four men completed the whole concern in half a day.—*Bangor Farmer.*

WORMS ON FRUIT TREES.—We find the following statement in the *Lansburg Gazette*:

Mr. Stephen Beach, who resides in Ferrisburg, Addison county, Vt., tried the following experiment with complete success: he took a slip of birch bark about the width of three fingers, this he put around the trunk of the tree, two or three feet

from the ground, and fastened the ends together, by means of a small nail driven into the tree; this bark he besmeared with the skimmings of a pot where salt pork, &c. had been boiled; the worms, as it is well known spin down from the trees every night, and when they attempt to ascend the tree, they are arrested by the bark, or rather by the grease on it—they approach this and can pass no further; they gather in large quantities below this strip of bark, and remain for a season and then disperse; some who attempt to cross the bark, would be found stretched out at full length and dead. It seems probable the grease and salt together destroys them. By this simple contrivance this gentleman succeeded to rid his orchard of every worm in a very short time. He informed me that one of his neighbors applied grease, or rather oil, on the tree itself; this he said prevented the worms from ascending, but it well nigh destroyed the trees. It is believed that when birch bark cannot be obtained, that pasteboard would answer the same purpose.

WASHING SILKS.

A late number of an English periodical, contains an useful article on washing silks, from which we copy the following extract:

"Lay the piece of silk upon a clean board; soap a piece of flannel wet, and with this rub the silk carefully and evenly one way; after having thus cleansed one side of the silk, take a wet sponge and wash off the soap; proceed in the same manner to clean the other side, and then wipe the water off of each with a clean dry cloth; after which hang the silk in the air to dry; do not wring it, but hang it as single as possible upon a linen horse, and let it dry; iron it with a cool box. In this manner we last summer washed a slate-colored dress, which was so dirty with the constant wear of a winter, that we did not like to use it even for linings, without endeavoring to remove some of the spots, and we were quite hopeless of its being fit for any thing except linings, even when washed, but its brightness was completely restored, and its texture was softer than when new."

We would again call the attention of farmers to the propriety of putting in their turnips early, as in so doing they will be sure to secure two advantages—increase in quantity, and the opportunity of resowing should the insect destroy their first sowing.

CONTENTS OF THIS NUMBER.

Account of a visit to Mr. Barney's farm, &c.—do. to Orange Farm—method of preventing the ravages of the turnip fly—inefficiency of quicksilver and sulphur as a preventive to insects—saw dust for packing plants—sympathy of animals—conclusion of Mr. Brown's essay on Indian corn—method of preparing *poudrelette* in France—account of the Mason bee—propriety and manner of washing wool—do.—mode of preventing the ravages of worms on fruit trees—mode of washing silks—caution to turnip growers—advertisements—prices current.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	1 50
CATTLE, on the hoof,.....	100lbs.	7 50	9 00
CORN, yellow.....	bushel.	93	95
White,.....	"	91	103
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	10	12½
Louisiana 20a21-Alabama	"	—	—
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	—	—
Do. do. baker's.....	"	—	—
Super How. st. in good de'd	"	8 75	9 00
" " wagon price,	"	—	—
City Mills, super.....	"	8 25	8 75
" extra	"	8 50	9 00
Susquehanna,.....	"	9 00	—
Rye,.....	"	6 00	—
Kiln-dried Meal, in hhd's.	hhd.	—	—
do. in bbl's.	bbl.	—	—
GRASS SEEDS, red Clover,.....	bushel.	7 50	—
Timothy (herds of the north)	"	2 50	—
Orchard,.....	"	—	3 00
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	12 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	—	6 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	45	—
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	87	1 00
Lady,.....	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	4 00	—
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	95	1 00
Susquehanna,.....	"	—	none
TOBACCO, crop, common,.....	100 lbs	2 50	3 00
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 50	1 80
Red, best.....	"	1 60	1 70
Maryland inferior	"	1 00	1 25
Whiskey, 1st pf. in bbl's.....	gallon.	—	35
" in hhd's.....	"	—	34
" wagon price,.....	"	—	30
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 25	—
To Wheeling,.....	"	1 50	—
Wool, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to

EDW. P. ROBERTS,
Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	—	13½
Shoulders,..... do.....	"	—	11
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	8½	9
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,.....	"	16	20
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	7 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12½
CHOP RYE,.....	"	1 75	1 87½
EGGS,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,.....	"	7 00	—
Herrings, salted, No. 1,.....	"	2 87	—
Mackerel, No. 1, ———— No. 2	"	8 00	9 00
No. 3,.....	"	—	4 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	8½	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	PER	FROM	TO
U. S. Bank,.....	par	—	—
Branch at Baltimore,.....	do	—	—
Other Branches,.....	do	—	—
MARYLAND.			
Banks in Baltimore,.....	par	—	—
Hagerstown,.....	do	—	—
Frederick,.....	do	—	—
Westminster,.....	do	—	—
Farmers' Bank of Mary'd, do	do	—	—
Do. payable at Easton,....	1	—	—
Salisbury,.... 2 per ct. dis.	—	—	—
Cumberland,.....	3	—	—
Millington,.....	do	—	—
DISTRICT.			
Washington,.....	do	—	—
Georgetown,.....	do	—	—
Alexandria,.....	do	—	—
PENNSYLVANIA.			
Philadelphia,.....	do	—	—
Chambersburg,.....	1	—	—
Gettysburg,.....	do	—	—
Pittsburg,.....	3½	—	—
York,.....	1	—	—
Other Pennsylvania Bks.	4	—	—
Delaware [under \$5]....	6	—	—
Do. [over 5].....	2	—	—
Michigan Banks,.....	10	—	—
Canadian do.....	10	—	—
VIRGINIA.			
Farmers Bank of Virgin.	2	—	—
Bank of Virginia,.....	do	—	—
Branch at Fredericksburg do	—	—	—
Petersburg,.....	do	—	—
Norfolk,.....	do	—	—
Winchester,.....	do	—	—
Lynchburg,.....	2½	—	—
Danville,.....	do	—	—
Bank of the Valley,....	2	—	—
Branch at Romney,....	2½	—	—
Do. Charlestown,.....	2	—	—
Do. Leesburg,.....	2	—	—
Wheeling Banks,....	4	—	—
Ohio Banks, generally	6½	—	—
New Jersey Banks gen.	5	—	—
New York City,.....	1	—	—
New York State,....	3½	—	—
Massachusetts,.....	3½	—	—
Connecticut,.....	3½	—	—
New Hampshire,....	3½	—	—
Maine,.....	3½	—	—
Rhode Island,....	3½	—	—
North Carolina,....	6	—	—
South Carolina,....	8½	—	—
Georgia,.....	do	—	—
New Orleans,.....	15	—	—

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs.

JOHN T. DURDING & CO.

je 27 4t

Fronting Grant and Ellicott sts.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	
English Corn Hoes	
Superior American made Casteele Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	Liberal discount made to those who purchase to sell again.
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

Jy 4

J. S. EASTMAN.

HARVEST TOOLS, &c.

Grain and Grass SCYTHES of most approved stamps—GRASS SNEATHES, with Scythes and Hangings complete; GRAIN CRADLES, 4 to 8 fingers, with warrant, ed scythes attached; Dutch and American SICKLES; SCYTHE STONES and STRICKLES, for whetting Scythes, BRAMBLE SCYTHES and HOOKS, for cutting briars and bushes; Mowers' and Cradlers' Hammers, Hay and Grain RAKES, Steel spring HAY FORKS.

And constantly kept for sale, PLOUGHS of various patterns, Cultivators for corn and tobacco, Wheat Fans, common and patent CORN SHELLERS, Cylindrical and common STRAW CUTTERS, Drills Machines for planting corn, beans, turnip seeds, &c.

Also, a large assortment of Garden and Field Tools, embracing most sorts used in garden nurseries, &c.

For sale by ROBERT SINCLAIR, Jr. & CO.
June 6 4t

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 44½ inches high, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to EDWARD P. ROBERTS,
Ap. 18. 4t. Baltimore, Md.

LIME-SPREADER.

J. S. EASTMAN, PRATT STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do exclusive of the wheels, shafts and axle,	60
For applying the machinery to a common cart	45
For the machinery alone	40
Including the patent fee in each case.	se 28 3t

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 13.

BALTIMORE, MD. JULY 25, 1837.

Vol. IV.

\$3-THIS publication is the successor of the late
AMERICAN FARMER,
and is published at the office, at the N. E. corner of
Market and Charles streets, at TWO DOLLARS AND FIFTY
CENTS per annum, if paid within one month from the time
of subscribing, or \$3 if after that time. All letters to be
post paid.

BALTIMORE: TUESDAY, JULY 25, 1887.

PRINTERS are referred to an advertisement on the last page.

SPRING WHEAT.

We would thank those editors who may be located in neighborhoods where Italian Spring wheat may have been sown the present season, to make inquiry as to the success that may have attended the experiments made of its culture, and notice the same in their papers.

We know that a great many gentlemen in Virginia, Maryland, and Pennsylvania, put in small quantities with a view of testing its adaptation to their soils and climates, respectively, and as there is a very deep interest prevailing to learn the result of the experiments made, every light that can be thrown upon the subject will be acceptable.

We see it stated in a *Maine* paper, that the bounty, which will be given by that state upon wheat grown therein, the present season, will amount to \$150,000.

We were glad to find the following communication in both of the Winchester papers upon the same day. The proposition it contains is an excellent one, and if adopted generally in every neighborhood where there is lime-stone, would be productive of much good.

[From the Winchester Republican.]

Farmers of the Valley : From Professor Rogers' report to our late legislature, and his analysis of limestones, it appears that those in our valley are eminently adapted to agricultural purposes ; and as, in the opinion of the same gentleman, it is one of the greatest mistakes in husbandry to suppose that lime is an improper manure for limestone land, as it evidently meliorates clayey, and renders sandy soils more tenacious : and as it has been, and is now the practice of the most scientific and successful farmers throughout the world, to use and recommend lime, as an essential requisite in compost manures for renovating exhausted soils, and enabling them again fully to recompense the industrious cultivator, by pouring into his lap abundant crops of wheat and other rich productions of the soil ; and as it appears

from the late improvements in the construction of limekilns that not only 30 per cent. may be saved in wood, but an additional value imparted to the quality of the lime ; and moreover, as it would be unnecessarily expensive in these *hard, hard* times, for every one who would wish to improve his farm by lime, to build a limekiln on the most approved plan ; for these and other reasons, I would, with all deference, propose :

The forming ourselves into companies throughout the Valley, of ten or twelve adjoining farmers, and at our joint expense to have permanent lime kilns erected, from which we may obtain, for the benefit of our farms, what quantity of lime soever we may want, and that not only of the best quality, but at the most reduced price. As the limestone will be selected which on a chemical analysis shall be found best fitted for farming purposes, it will not be considered, by any member of the company, as of much importance, on what part of his or his neighbor's farm the limekilns may be built, as they will be kept in constant operation, and the lime taken away in its unslacked state by the company's wagons that bring their wood.

In some parts of England the farmers haul lime from a distance of many miles for the improvement of their farms and the increase of their crops, and in the three Lothians of Scotland, with lime as an indispensable article in their compost manures, they raise of wheat to the astonishing average of forty bushels per acre! and yet we hesitate about using lime on our farms in the Valley, and not only because we have it of the very best quality, but likewise in the greatest abundance!!

Two or three parts of earth and leaves taken from our woods, or of virgin soil obtained from any place, two parts of lime and as many parts from our stable yards, will form a compost, which carefully mixed, spread, and ploughed into our wheat fallows, would yield us from 25 to 30 bushels per acre. Then should we wonder at the luxuriance of crops, not as at present be obliged to purchase our seed, brought from the distance of many thousand miles, and endeavor in vain to borrow its price, when the door of every bank in the union is shut upon us, and denies us credit, as is the present unhappy situation of

A FARMER.

AGRICULTURAL SURVEY.

We noticed some time since the appointment of the Rev. *Henry Colman*, by the government of Massachusetts, to make an agricultural survey of that state, and we insert below, in to-day's journal, an article upon the subject, by which the nature and extent of his contemplated labors will be seen. Although this survey is local, we consider it highly important, as from its usefulness other states

may profit by the example about to be set them. Mr. Colman is a practical as well as scientific farmer, and will doubtless throw much light upon the subject in his report, the forthcoming of which we shall look for with no ordinary degree of anxiety. Such surveys by competent individuals, must exercise the happiest effects upon the interests of the husbandry of a state or country, and we trust to see them become *fashionable* with every legislative body in our union.

[From the Salem Gazette.]

AGRICULTURAL SURVEY.

Rev. Henry Colman, having been appointed by the Executive of the Commonwealth, under the provisions of a resolve of the Legislature, Commissioner to make an agricultural survey of the state, has addressed a circular to various inhabitants of the different towns, with a copy of which we have been favored. As a very large proportion of our readers are more or less engaged in farming operations, we copy for the information of such of them as may not see the circular, the *heads* of the inquiries to which answers are desired. The numerous subsidiary queries, coming under each general head, would occupy more of our space than we can conveniently spare to-day.

INQUIRIES.

1. The nature of the soil, in different parts of the state, and particularly in reference to the crops cultivated. 2. The climate, with reference to the crops grown; the usual time of ploughing, planting and harvesting; the occurrence of early frosts; the length of winter; the average temperature; and the quantity of rain or snow in any year. 3. The number of acres in any town cultivated or in any form productive. 4. Products.

5. Crops cultivated—wheat, Indian corn, rye, barley, oats, buckwheat, peas, beans, tares, lupins, hemp, flax, tobacco, hops, broom corn, teasles, madder, woad, saffron, rape, mints, grass for bonnets, mulberry for silk, sunflower for oil, poppy for opium, mustard, succory, herds grass, clovers, red top, orchard, lucerne, tall meadow oats, English bent, rye grass, millet, foul meadow, blue grass, salt meadow grasses, thatch, potatoes, cabbages, onions, carrots, parsnips, beets, artichokes, pumpkins, turnips, fruits, garden vegetables.

6. Other products—wool, silk, beef, pork, mutton, lard, cheese, butter.

7. Rotation of crops, 8, modes of cultivation, 9, diseases of crops, blight, mildew, rust, curl, &c. 10, weeds, and methods of extermination, 11, refuse of crops, preservation, value and use for fodder and manure, 12, manures, 13, live stock, 14, animals for labor, 15, animals for beef, 16, markets, returns of Danvers and Brighton markets, 17, animals for the dairy, 18, dairy produce, 19, swine, 20, sheep, 21, horses, 22, animals kept for breeding, 23, feeding of animals, 24, poultry, 25, dis-

eases of domestic animals, 26, farm buildings, 27, bees, 28, orchards, gardens, 29, diseases of trees, 30, injurious insects and vermin, 31, fences, 32, forest trees, 33, general improvements, 34, great farming operations, 35, examples in detail and in full of general farm management, and particular improvements, 36, labor, 37, every description of farming implements, &c.

38. Condition of roads, and the improvements in the construction of roads, as intimately connected with the agricultural prosperity of a country.

39. Miscellaneous subjects. Size of farms, farm capital, farm accounts, laws relating to agriculture, taxes and burdens upon land, agricultural pauper establishments, agricultural and manual labor schools and colleges, agricultural societies—their funds, premiums, operations, cattle shows, agricultural libraries and publications.

40. Manufactures connected with agriculture.

41. Objects of particular inquiry, with a view to agricultural improvements. Improvements in live stock, in utensils and farm building, in new vegetables, fruits, and grasses, in seeds for earliness and abundant yield, in economical preparations and uses of food for man and beast; in economical application of human and brute labor; in application of water, steam or wind power to purposes of husbandry; in cultivation, depth of ploughing, mixing of soils, compost manure, manuring green crops, inverting and covering the sward, drill culture, sowing broad-cast, management of any particular crop, &c. &c. Improvements in rotation of crops, in uses of lime, gypsum, bone dust—in application of ashes, crude or spent—in application or discovery of other manures—in construction of farm buildings.

42. Exports and imports of agricultural produce. Capacity of the state to supply its own wants.

43. Specimens of soils to be analyzed. Models of improved implements, &c. &c. Samples of wool, silk and sugar.

In conclusion, Mr. Colman remarks—

"My duty will require me to visit every town in the state; and my wish is to visit every principal farm in every town, the management of which promises to afford useful information. In determining what particular farms to visit, it is obvious that I must necessarily be directed by the advice or suggestions of others, which I shall always be most happy to receive: but in order to avoid all invidiousness, I beg leave to state distinctly in the outset, that unless prevented by extraordinary circumstances, I will visit every farmer who will do me the kindness to invite me to his premises; and I have perfect confidence in finding oftentimes as creditable and instructive management among small farmers as among those who pursue agriculture upon an extensive scale. I therefore solicit such invitations, and will gladly avail myself of them.

I purpose to make the survey by counties, and am anxious to prosecute it with all convenient despatch. I beg the farmers to whom this circular is sent, to give it an attentive and repeated examination. The objects of the survey are most important to the farming interest. I go to seek information from practical men; and shall be happy to communicate all I receive. I solicit the

correspondence and co-operation of such men.

It is reasonable to hope that the inquiries will elicit much valuable knowledge; that they will contribute to excite and strengthen a spirit of improvement in agriculture, this most honorable and useful pursuit, that they will unfold agricultural resources and capacities of which we were not fully aware; that they will strengthen those which already exist, and present new reasons for a devoted attachment to our state—a state, which, if its soil be comparatively hard and sterile, and its climate severe, is in a high degree favorable to longevity, to strength of muscle, vigor of intellect, and moral energy; furnishes an ample reward to patient industry, temperance and frugality; and under the administration of upright magistrates and wholesome and equal laws, which she has so long and eminently enjoyed, abounds in the elements of domestic comfort, and social improvement and prosperity.

Yours respectfully,

HENRY COLMAN.

Boston, June, 1837.

ELECTRO MAGNETIC MACHINE.

We published some weeks since a very brief abstract of this new invention, and as its importance seems to call for a more full detail, we insert to-day the account from Professor Silliman's excellent work.

From the Amer. Journal of Science and Art.

Notice of the Electro-Magnetic Machine of Mr. THOMAS DAVENPORT, of Blandon, near Rutland, Vermont.

Many years have passed since motion was first produced by galvanic power. The dry columns of De Luc and Zamboni caused the vibration of delicate pendulums and the ringing of small bells for long periods of time, even several years, without intermission.

In 1818—20, Prof. Oersted, of Copenhagen, discovered that magnetism was evolved between the poles of a galvanic battery. Prof. Schweigger of Halle, Germany, by his galvanic multiplier, succeeded in rendering the power manifest, when the galvanic battery was nothing more than two small wires, one of copper and the other of zinc, immersed in as much acidulated water as was contained in a wine glass. The power thus evolved was made to pass through many convolutions of insulated wire, and was thus augmented so as to deflect the magnetic needle sometimes even 90°. Prof. Moll, of Utrecht, by winding insulated wire around soft iron imparted to it prodigious magnetic power, so that a horse shoe bar, thus provided, and connected with a galvanic battery, would lift over one hundred pounds. About the same time, Mr. Joseph Henry, of Albany, now Prof. Henry, of Princeton College, by a new method of winding the wire, obtained an almost incredible magnetic force, lifting six or seven hundred pounds, with a pint or two of liquid and a battery of corresponding size; nor did he desist, until, a short time after, he lifted thousands of pounds by a battery of larger size, but still very small, (1830.)

This gentleman was not slow to apply skill to the generation of motion, and a successful attempt

of his is recorded in this journal. A power was thus applied to the movement of a machine, by a beam suspended in the centre, which performed regular vibrations in the manner of a beam of a steam engine. This is the original application from which have sprung, or at least to which have succeeded, several similar attempts, both in this country and in Europe. A galvanic machine was reported to the British association in 1835, by Mr. McGauley of Ireland, and he has renewed his statements of successful experiments at the late meeting at Bristol. Mr. Sturgeon, of Woolrich, England, also reports a galvanic machine in use on his premises for pumping water, and for other mechanical purposes.

But, I believe that Mr. Davenport, named at the head of this notice, has been more successful than any other person in the discovery of a galvanic machine of great simplicity and efficiency. Having been recently invited to examine a working model, in two varieties of form, and to report the result, I shall now attempt nothing more than a general description, such as may render intelligible the account I am about to give.

1. The Rotary machine, composed of revolving electro-magnets, with fixed permanent magnets.

This machine was brought to New Haven, March 15, 1837, by Mr. Israel Slade, of Troy, New York, and by him set in motion for my examination. The moving part is composed of two iron bars each placed horizontally, and crossing each other at right angles. They are both five and a half inches long, and they are terminated at each end by a segment of a circle made of soft iron; these segments are each three inches long in the chord line, and their position as they are suspended upon ends of the iron bars, is horizontal.

This iron cross is sustained by a vertical axis, standing with its pivot in a socket, and admitting of easy rotation. The iron cross bars are wound with copper wire, covered by cotton, and they are made to form, at pleasure, a proper connexion with a small circular battery, made of concentric cylinders of copper and zinc, which can be immersed in a quart of acidulated water. Two semicircles of strongly magnetized steel, form an entire circle, interrupted only at the two opposite poles, and within the circle which lies horizontally, the galvanised iron moves in such a manner that its iron segments revolve parallel and very near to the magnetic circle, and in the same plane. Its axis at its upper end, is fitted by a horizontal cog-wheel to another and larger vertical wheel, to whose horizontal axis, a weight is attached and raised by the winding of a rope. As soon as the smallest battery, destined to generate the power, is properly connected with the machine, and duly excited by diluted acid, the motion begins by the horizontal movements of the iron cross, with its circular segment of flanges, by the galvanic connection, these crosses and their connected segments are magnetized, acquiring north and south polarity at their opposite ends, and being thus subjected to the attracting and repelling force of the circular fixed magnets, a rapid horizontal movement is produced, at the rate of two hundred to three hundred revolutions in a minute, when the small battery was used and over 600

with a calirometer of large size. The rope was wound up with a weight of 14 pounds attached, and 28 pounds were lifted from the floor. The movement is instantly stopped by the breaking of the connexion with the battery, and then reversed by simply interchanging the connexion of the wires of the battery with those of the machine, when it becomes equally rapid in the opposite direction.

The machine, as a philosophical instrument, operates with beautiful and surprising effect, and no reason can be discovered why the motion may not be indefinitely continued.

2. Rotating Machine, composed entirely of electro-magnets both in its fixed and revolving members.

A machine of this construction has been this day, March 29, 1837, exhibited to me by Mr. Ths. Davenport himself, who came from New York to New Haven for that purpose.

It is the same machine that has already been described, except that the exterior fixed circle is now composed entirely of electro-magnets.

The entire apparatus is, therefore, constructed of soft unmagnetic iron, which being properly wound with insulated copper wire, is magnetized in an instant, by the power of a very small battery.

The machine is the identical one used before, except that the exterior circle of permanent magnets is removed, and in its place is arranged a circle of soft iron, divided into two portions to form the poles.

These semi-circles are made of hoop iron, one inch in width, and one-eighth of an inch in thickness. They are wound with copper wire insulated by cotton—covering about ten inches in length on each semicircle, and returning upon itself, by a double winding, so as to form two layers of wire, making on both semicircles about 1500 inches.

The iron was not wound over the entire length of one of the steel semicircles; but both ends were left projecting, and being turned inward, were made to conform to the bend of the other part; each end that is turned inward and not wound is about one-third of the length of the semicircle. These semicircles being thus fitted up, so as to become, at pleasure, galvanic magnets, were placed in the same machine that has been already described, and occupied the same place that the permanent steel magnets did before. The conducting wires were so arranged, that the same current that charged the magnets of the motive wheel, charged the stationary ones, placed around it, only one battery being used. It should be observed, that the stationary galvanic magnets thus substituted for the permanent steel ones, were only about half the weight of the steel magnets.—This modification of the galvanic magnet, is not of course the best form for efficiency; this was used merely to try the principle, and this construction may be superseded by a different and more efficient one. But with this arrangement, and notwithstanding the imperfection of the mechanism of the machine—when the battery, requiring about one quart of diluted acid to immerse it, was attached, it lifted 16 lbs. very rapidly, and when the weight was removed, it performed more than 600 revolutions per minute.

So sensible was the machine to the magnetic

power that the immersion of the battery one inch into the acidulated water, was sufficient to give it rapid motion which attained its maximum, when the battery was entirely immersed. It appeared to me that the machine had more energy with the electro-magnets, than with those that were permanent, for which the smallest battery, whose diameter was three inches and a half—its height 5½ inches, and the number of concentric cylinders 3 of copper and three of zinc, the instrument manifested as great power as it had done with the largest batteries, and even with a larger calirometer, when it was used with a permanent instead of a galvanic magnet. With the small battery and none but electro or galvanic magnets, it revolved with so much energy as to produce a brisk breeze, and powerfully to shake a large table on which the apparatus stood.

Although the magnetization of both the stationary and revolving magnets was imparted by one and the same battery, the magnetic power was not immediately destroyed by breaking the connexion between the battery and the stationary magnet; for when this was done, the machine still performed its revolutions with great, although diminished energy; in practice, this might be important, as it would give time to make changes in the apparatus, without stopping the movement of the machine.

CONCLUSIONS.

1. It appears then, from facts stated above, that electro-magnetism is quite adequate to the generation of rotary motion.

2. That it is not necessary to employ permanent magnets in any part of the construction, and that electro-magnets are far preferable, not only for the moving, but for the stationary parts of the machine.

3. That the power generated by electro-magnetism, may be indefinitely prolonged, since, for exhausted acids and corroded metals, fresh acids and batteries, kept always in readiness, may be substituted, even without stopping the movement.

4. That the power may be increased beyond any limit hitherto attained, and probably beyond any which can be with certainty assigned, since, by increasing all the members of the apparatus, due reference being had to the relative proportionate weight, size, and form of the fixed and moveable wires, and the manner of winding them, and to the proper size and construction of the acid or other exciting agent, and the manner of connecting the battery with a machine it would appear certain, that the power must be increased in some ratio which experience must ascertain.

5. As electro-magnetism has been experimentally proved to be sufficient to raise and sustain several thousands of pounds, no reason can be discovered why when the acting surfaces are, by skilful mechanism, brought as near as possible without contact, the continued exertion of the power should not generate a continued rotary movement, of energy inferior indeed to that exerted in actual contact, but still nearly approximating to it.

6. As the power can be generated cheaply and certainly—as it can be continued indefinitely—as it has been greatly increased by very simple means—as we have no knowledge of its limit, and may therefore presume on an indefinite

augmentation of its energy, it is much to be desired that the investigation should be prosecuted with zeal, aided by correct scientific knowledge, by mechanical skill, and by ample funds. It may, therefore be reasonably hoped that science and art, the handmaids of discovery, will both receive from this interesting research a liberal reward.

Science has thus most unexpectedly placed in our hands, a new power, of great but unknown energy.

It does not evoke the winds from their caverns; nor give wings to water by the agency of heat; nor drive to exhaustion the muscular power of animals; nor operate by complicated mechanism; nor accumulate hydraulic force by damming the vexed torrents; nor summon any other gravitating force, but by the simplest means—the mere contact of metallic surfaces of small extent, with feeble chemical agents, a power every where diffused through nature, but generally concealed from our senses, is mysteriously evolved, and by circulation in insulated wires, it is still more mysteriously augmented, a thousand and a thousand fold until it breaks forth with incredible energy; there is no appreciable interval between its first revolution and its full maturity, and the infant starts up a giant.

Nothing since the discovery of gravitation and of the structure of the celestial system, is so wonderful as the power evolved by galvanism—whether we contemplate it in the muscular convulsions of animals, the chemical decomposition, the solar brightness of the galvanic light, the dissipating, consuming heat, and, more than all, in the magnetic energy which leaves far behind all previous artificial accumulations of this power, and reveals, as there is full reason to believe, the grand secret of terrestrial magnetism itself.

B. S.

New Haven, March 31, 1837.

Claim of Thomas Davenport.

In the words of the patent taken out, the invention “consists in applying magnetic and electro-magnetic power as a moving principle for machinery, in the manner described, or in any other substantially the same in principle.”

“Mr. Davenport first saw a galvanic magnet in Dec. 1823, and from the wonderful effects produced by suspending a magnet of 150 lbs. from a small galvanic battery, he immediately inferred, without any knowledge of the experiments of others, that he could propel machinery by a galvanic magnet, and produced his first rotary motion in July, 1834. In July, 1835, he submitted his machine to Prof. Henry, of Princeton, N. J. also without any knowledge of Prof. Henry’s experiments in producing a vibratory motion. From this gentleman he received a certificate testifying to the originality and importance of the invention.”

Mr. Davenport is, by occupation, a blacksmith of only a common education, but with uncommon intelligence—his age is about thirty-five.—Mr. Ransom Cook of Saratoga Spring, is associated with Mr. Davenport, and has rendered essential service by the improvements he has made in the machine, and by his assistance in bringing the subject before the public in the most effectual way. Arrangements have been made to take out the patent in Europe.

EXPERIMENTS IN RAISING LUCERNE.

We find in the Transactions of the Society for the Promotion of Agriculture, &c. two communications from Chancellor Livingston, giving the details and results of fourteen experiments made in the culture of lucerne, upon various soils, and in connexion with various crops. The results were various. In some cases the produce was estimated as high as six tons four cwt. the acre in cured forage; and five crops were taken in a season, two to feed green, and three as hay. In other cases, upon stiff or wet soils, or with grain that lodged, the results were unfavorable. These experiments enabled that intelligent gentleman to lay down some definite rules for our guidance in the culture of this valuable crop, and among them the following:

"1. Never to sow on ground that is not perfectly pulverized.

"2. Not to sow till the earth has acquired a degree of warmth friendly to rapid vegetation, that is, not earlier than the month of May.

"3. To sow with no crop that will probably lodge.

"4. If sown with buckwheat, to apply no gypsum or other manure till the buckwheat is off."

The first course of experiments was made in 1793. The Chancellor closes this communication with expressing his opinion, that lucerne is better adapted to our climate than clover; that it exacts no more labor; that it leaves the soil much better than it found it; and that it is perennial in its duration—having remarked two plants in a common pasture which has defied the bite of cattle for upwards of 20 years.

The second communication details his experiments in 1794, and closes with further suggestions as to the habits and best mode of cultivating the lucerne, viz.

"That it appears to be full as hardy as clover, but like it, to delight in a warm dry soil, though it will flourish in a moist clay, subject, however, to the same casualties in open winters, when both will be thrown out by the frost.

That "when very young, it requires a natural or artificial warmth in the soil, otherwise it languishes, and when the weeds and natural grasses come up, it is unable to contend with them. That it should be sown in a warm soil, in tolerable heat;" that he should prefer for it, ground that had been manured and bore a potato crop the preceding year. That the seed may be sown the first of July. That if the crop becomes yellow, it should be immediately mown, and that it will come forth again free from disorder. That the time for cutting for soiling, is whenever it will fill the scythe—should be cut the first year, to destroy weeds. That it may be fed down by any kind of cattle with as much safety as clover, &c. He urges upon young farmers, not to be discouraged in its culture by older ones, who tell him they have tried it, and that it will not do; and to persevere, and they will succeed in rendering it profitable.

We have had considerable experience in raising lucerne during the last sixteen years. Until recently, we have found it a valuable crop, having been enabled to feed six or seven cattle upon an acre of it during the summer months. For two or three of the last years, our efforts to cultivate it have been less successful, on account of

the severity of our winters, which has destroyed many of the plants, and of the vexatious intrusion of other grasses, particularly of the spear-grass. [*Poa pratensis*.] We think a potato or a ruta baga crop, manured and kept clean is the best crop to precede lucerne; that it should not be sown before the middle of May; that there should be 16 pounds of seed sown to the acre, and that if put in broadcast, winter rye, at the rate of a peck to the acre, is the best grain to sow with the seed of the lucerne. We design to make an experiment in cultivating it in drills, the mode generally adopted in France, and to keep the crop free from weeds and grass with the cultivator, for which Van Bergen's machine is admirably adapted, by merely taking out the forward and central share, and dispensing with the wheel.—*Albany Cultivator*.

[From the Winchester Republican.]

LIMESTONE,

GROUND, but not BURNED, for agricultural purposes.

The following paper, on the use of *Limestone*, ground instead of burned, for agricultural purposes, was read before the Lyceum of Natural History of New York, by Wm. Partridge, Esq.

The facts therein set forth, are highly important, and are worthy of being tested by those who have limestone on their farms. We ask for this subject, the attention of our readers, and of those who have heretofore tested, or may hereafter test, the theory by experiment, to furnish us a statement of the result for publication. We shall also be much obliged to Mr. Partridge for a continuation of his favors.

To the President of the Lyceum of Natural History.

SIR—In a conversation I had with you on board a steamboat on the North river, sometime during the summer of 1835, relative to lime, as applied agriculturally, I mentioned the advantage of using it generally in a ground state, as plaster is now used, instead of burning it. You informed me, subsequently, that your farmer had applied some on your land in a state of powder, and found it decidedly beneficial. I then promised to send you my written opinion on the subject, and I now beg leave to fulfil that promise, with an apology for delaying it so many months.

It is well known, to every intelligent agriculturist, that soils covering limestone rocks are the most productive of any on the globe. I know of but one exception, when the limestone is too highly charged with magnesian earth. Our country affords many facts in proof of this assertion. I shall refer to two locations as all sufficient for my purpose. The state of Kentucky has a bed of limestone running underneath its whole surface, and its natural soil has been produced, and is still producing by the abrasion of those rocks. The superior productive powers of the soil of the State is well known to every intelligent farmer in our extensive country, and is spoken of in terms of admiration by Europeans. That part of Pennsylvania extending from the Lehigh Water Gap to Easton, is a limestone country, and affords another instance of its highly productive powers.

In England, the soil deposited in valleys at the foot of limestone hills, are equally productive.

The valley running from the City of Bristol, to the city of Worcester, is of this description, and there is no soil more productive in Great Britain. There are more than twenty spurs of hills bounding that valley, each containing large bodies of limestone rock, and the springs flowing from them, are so charged with limestone, as to incrust every thing lying in them. When the springs issue from the rocks high up the hills, they are much used for irrigating the higher lands, and the beneficial effects are visible to every observer.

Lime, in the state of Chalk, is also used very generally on land near to the Chalk Mountains in England.

The lower part of this State abounds in primitive limestone, and the preceding observations were made with a view to apply the facts to rectify a material error committed, as I conceive, by the farmers in using it on their land. They burn the limestone at considerable expense, and in that state use it for agricultural purposes. I would suggest, as a far better general application, that the limestone be merely ground, and in that state applied to the land. As this may be a new mode of application, I shall endeavor to shew wherein it is preferable to the present.

I have been frequently informed by farmers who use burnt lime on their land, that they keep it some months before using, and that then the good effects are not observed the first year. We have only to ascertain what these facts prove, and the whole mystery will be instantly solved. In burning limestone two materials essential to agricultural productiveness are driven off, its water and its carbonic gas. In its natural state it is a carbonated hydrate, when burnt it is caustic lime (oxide of calcium) made so by the heat driving off its water and carbonic gas. Why does the farmer delay putting it on his land, but for the simple reason that it is too caustic for vegetation. Why does it require to lie in the soil one year before producing any visible fertilizing effect? it is for nothing more than to give it time to return again to a state of carbonated hydrate, the same condition it was in before burning.

I have said that limestone merely ground is the best general mode of applying it to agricultural purposes; there are some exceptions to this rule. When a soil contains "hard roots, dry fibres, or other inert vegetable matter, a strong decomposing action will take place between burnt lime, and the vegetable matter, rendering that which was before comparatively inert, nutritive." Where this is the case, it would be well for the farmer to use one-third burnt lime, and two-thirds of ground limestone, or any other proportion he may find most efficacious. For stiff heavy soils use the limestone coarsely powdered, for in this state, after being well ploughed and harrowed, so as to mix thoroughly with the soil, it would so lighten it as to enable the sun and air to penetrate to the roots of its vegetation, thereby rendering the future crops more productive. For lighter soils it cannot be ground too fine. Our primitive limestone rocks are peculiarly well calculated for this purpose, as the particles are held together by a loose aggregation, and therefore easily reduced to small pieces, or to a fine powder, at the option of the operator.

The question was asked, by a writer in a late

New-York Farmer, "if it be possible that ground limestone can answer the purpose of plaster of Paris." I should say that it can, and it may be, eventually, to a better purpose. The fertilizing property of plaster depends mainly, if not altogether on its hydratic property, that is, on its power to attract moisture during the night, and imparting it gradually to the plants during the day. The carbonate of lime possesses the same property in a considerable degree. I have never heard of these two limestones being analyzed, for the purpose of developing their comparative powers of absorbing moisture from the atmosphere, and their facilities of giving out their moisture at atmospheric temperatures. To have this accurately performed, would be a desideratum with agriculturists.

We know that soils formed by the abrasion of limestone rocks are of the most fruitful description: we see its productive powers when land is irrigated with equal effect in the state of Chalk. Science has developed the properties on which this productiveness depend, and if our farmers would suit their appliances scientifically, we should not now be receiving a supply of agricultural products from Europe.

WILLIAM PARTRIDGE.

[From the Northampton Courier.]

MR. CLARKE'S DIRECTIONS FOR THE MANAGEMENT OF WORMS FIFTY YEARS SINCE.

When the worms are hatching, save all you can of those which come out the first day, and consider them your best worms and you will not be disappointed.

Let your worms be divided into classes—those hatched the first day, be taken from the papers, put on boards by themselves, and called the first class—those hatched the second day to be considered the second class, and so on from day to day.

When the worms are moulting their skin, give them only a few leaves, for the feed of such worms as may be a little later in moulting and for some that are in advance and forwarder. It may so happen that when the class in general is moulting, there will be some that have got through and others that have not begun, and both will want feed.

In this climate they moult the first time at eight days' old, then sick again in four days. In five days more are sick the third time, and in five days afterwards are sick the fourth time. They then eat voraciously five or six days more, till they wind up. The continuance of sickness is uncertain, generally one or two days.

When they begin to wind up, they ought to be followed up close with a great plenty of leaves, till they have all left the shelves.

They ought to travel as little as possible from the shelves or tables where they are fed to the place where they are winding up.

In gathering leaves, instead of picking them when free from moisture, I have found it best to pick them when the dew is on, or even wet with rain, and given to the worms in that state, and to sprinkle with water if they have been kept so as to wilt or dry. In gathering leaves this season, I have plucked off the sprouts or twigs of this year's growth with the leaves on and given in

that state to my worms, and have found this advantage from it—that the worms wasted no leaves as they commonly do when leaves only are strewed over them, and pressing them down so close that they never can eat them. But when the leaves are given them on the twigs, forming hollow places, so that the worm can crawl both under and over, and eat with less waste than when leaves alone are given them. Besides, they eat a considerable part of the twigs, which afford as much nourishment as the leaves. Another advantage is, that worms are not incommoded by the offal which falls down below the twigs upon the table or shelves; and as many worms are inclined to wind up when they are fed, the opportunity is improved by winding the cocoons between the twigs, affording convenient and clean places for the worms to form their cocoons without waste of silk or floss.

EXAMINER.

SILK CULTURE IN A "NUT SHELL."

An Italian gentleman in New York who has been familiar with all the details of Silk business in Italy, has published a little pamphlet, giving facts and opinions on this subject. The following paragraph is designed to show how the business may profitably be connected with agriculture without interfering with the regular industry of the Farmer. It is precisely the way it is proposed to introduce it here and render it lucrative in this country—he gives a practical illustration:

"I will take the case of a farmer who owns merely a small house sufficient for the residence of his family, and about ten acres of land. Without the least sacrifice or diminution of the productiveness, if he would merely surround it with a hedge-row of Mulberries, planted with judgment and according to the best methods, it is certain that it would cost him to do so only a few dollars of expenditure for the purchase of the trees, but the beauty and value of his farm would be immensely improved. At the end of the third year the trees will have arrived at such a growth as to furnish leaves in considerable abundance.

But suppose that they will produce leaves enough only to feed the silk worms from two ounces of eggs, yet such a number if carefully nurtured would yield at a moderate estimate, one hundred and seventy-five pounds of cocoons, which at twenty cents a pound would give a profit of \$63 6-100th. The care of so small a number of worms would not be a great burthen to the farmer. One woman, with the assistance of a boy, for the labor of gathering the leaves during five weeks, would suffice. Nor would it be requisite to enlarge the house for the accommodation of the worms. The kitchen or sleeping room, if well ventilated would be sufficient to contain the worms from two ounces of eggs without inconvenience. The fixtures necessary for the accommodation of the worms would be so trifling that their cost can scarcely be calculated, especially as this expense would only be incurred in the first year. From this calculation made on an experiment so limited, it is easy to estimate how profitable it would be for farmers and proprietors of extensive grounds to cultivate the silkworm, where they can have large plantations of Mulberry.—*Hartford Democrat.*

[From the Boston Mercantile Journal.]

BEES.

We have often marvelled that our New England Farmers do not pay more attention to the rearing of bees. The produce of these industrious insects is far more profitable than the generality of persons may be inclined to imagine, and the little time which is necessary to bestow upon them is seldom uselessly employed. They will always thrive in the vicinity of fields of clover and flower gardens—and while the product of their labors will furnish no inconsiderable profit in a pecuniary point of view, the example of industry, which will thus be constantly placed before the younger portion of the community, may have the most beneficial effects. We lately met with the following anecdote, showing some of the advantages which may arise from keeping bees:

"A French bishop being about to make his annual visitation, sent word to a certain curate, whose ecclesiastical benefice was rather trifling, that he meant to dine with him; at the same time requesting that he would not put himself to any extraordinary expense. The curate promised to attend to the bishop's suggestion, but he did not keep his word, for he provided a most sumptuous entertainment. His lordship was much surprised, but could not help censuring the conduct of the curate, observing that it was highly ridiculous in a man whose circumstances were so narrow, to launch out into such expense, nay, almost to dissipate his entire income in a single day. 'Do not be uneasy on that score, my lord,' replied the curate 'for I assure you that what you now see is not the product of my curacy, which I bestow exclusively upon the poor.' 'Then you have a patrimony, sir?'—said the bishop. 'No sir.' 'You speak in riddles: how do you then do?' 'My lord, I have a convent of young damsels here, who do not let me want for any thing.' 'How! you have a convent!—I did not know that there was one in this neighborhood. This is all very strange, very unaccountable, Mr. Curate.' 'You are jocular my lord.' 'But come, sir, I entreat that you would solve the enigma: I would fain see the convent.' 'So you shall, my lord, after dinner; and I promise you that your lordship shall be satisfied with my conduct.'

Accordingly when dinner was over the curate conducted the prelate to a large enclosure, entirely occupied by bee-hives, and pointing to the latter, observed, 'this my lord, is the convent which gave us our dinner; it brings me in about 1800 livres per annum, upon which I live very comfortably, and with which I contrive to entertain my guests genteelly.' The surprise and satisfaction of the bishop at this discovery may easily be conceived. The sequel of the story informs us that afterwards whenever a curate made application to his lordship for an improved living, he would only reply, 'keep bees—keep bees.'

EXHIBITION OF HORSES.

The following article from the pen of one of our friends, who was present at the exhibition spoken of—and in whose judgment we rely, is freely placed in our paper, and adopted as our own.

Thursday of last week, being the day set apart

for the exhibition of Horses at Delaware City, many of the neighbors and a number of gentlemen from a distance attended; the rain however was so constant and the weather so unpleasant, but few horses were present. There were, however, some fine stallions and geldings. Of the former we may notice General Sewall's celebrated horse, Maryland Eclipse, who is decidedly one of the best horses in the country, also Mr. Rogers' Eclipse, a very fine horse, and Jersey Hero, a colt of Mark Anthony, and Black Hawk, by John Richards.

A very large 2 years old colt was brought by Mr. Allen, got by Delaware Eclipse; also a colt of Mr. Alexander M. Biddle, near St. Georges, he is 4 years old, a bright bay, by John Richards, this colt is very finely formed for beauty, strength and action, and it is believed he will make an excellent Race horse. He will probably be trained for some of the Fall races.

Among the geldings present, we cannot refrain from noticing a remarkably well matched pair of Horses, owned by Mr. Wm. Herdman, near Newport, they are of a beautiful cream color, with mane and tail of pure white, their forms are beautiful and their action fine, they appear to be spirited but well broken and kind.

Mr. Stillwell also exhibited his beautiful and celebrated horse Yellow Jacket. He is a beautiful light bay color, and for symmetry and action cannot be surpassed.

Had the weather proved favorable the meeting would have been of a much more interesting character; but as it was, there was much to be pleased with. It is really gratifying to see the farmers of this County, giving so much encouragement as they are now doing to the improvement of the breed of Horses, and if meetings of this description were more numerous they would undoubtedly prove beneficial to the Horse raising interest. As the rearing of good Colts is now becoming fashionable, it is to be hoped that breeders will bestow more time and pains than they have heretofore done in breeding and training them to the saddle and harness. It will add to the value of their stock and greatly promote the comfort of those who may purchase the horses. —*Del. Gazette.*

GRUBBING MACHINE.

Travelling lately on the banks of Connecticut river, in the vicinity of Hanover, I observed hundreds—and I believe thousands of rods, of strong substantial and durable fence made of white pine stumps extracted from the ground with their roots. Curiosity led me to inquire by what power and machinery, the operation of extracting was performed. An obliging stranger showed me one of the machines and explained the manner in which it was applied—and as I apprehend these machines may be used to great advantage in many parts of the United States where they have not been heard of, I will endeavor, as far as I can recollect to describe the machine, and explain the manner of using it.

The machine consists of a very strong pair of wheels, say 18 feet diameter; the axis is about 15 or 16 inches diameter. Near to, and the inside of one of the wheels, a third wheel, something less than the others, is framed on the axis, as a hub. A large rope or hawser, is fastened to

the periphery of the small wheel and coils upon it. To the end of this hawser are hitched four oxen—a large chain is made fast to the centre of the axis and round the stump. The oxen drawing upon the hawser, turn the small wheel and axis, while the two large wheels remain stationary, only supporting the operation. The stump when thus extracted is borne off, swinging under the axis, to the line where the fence is to be made.

It may be necessary to add that where the stump is large and holds a strong grasp upon the earth, the most prominent top roots should be cut off 3 or 4 feet from the stump.

The fence is constructed by throwing the stumps into line, and stopping in here and there a root to secure the widest openings. To those acquainted with the durability of pine stumps, it is hardly necessary to observe that the fence constructed of them will remain sound for at least one generation.

The machine constructed as above and applied by four men and four oxen will extract from 70 to 80 stumps per day. Its usefulness needs no comment. There is nothing visionary about it. The experiment has been tried upon a large scale, and many a farmer who heretofore dreaded the pine stump as an enemy which would survive himself and annoy his heirs, now swings his undisturbed scythe or cradle over the strong ground which his fallen foe once occupied.—*Centreville Times.*

WILSON'S NEW MOWING MACHINE.

The success which has crowned the efforts of ingenuity in introducing machinery in aid of manufactures and the mechanic arts, has encouraged the attempt to afford a like auxiliary to agriculture. Mr. Wilson has constructed a machine all important in this great branch of industry, and has so far perfected it, that he is willing to submit it to the scrutiny of those most competent to decide. He has solicited the American Institute of this city to aid him in having his improvement fully and fairly tested. With this view an extensive meadow has been selected at Flatbush, Long Island, and Wednesday, the 19th of July, instant, 3 o'clock, P. M. has been determined upon as the time for the commencement of this interesting experiment. We believe the machine will fully answer public expectation. The Judge at the 9th Annual Fair of the American Institute fully impressed with the practical utility of this machine, for the purpose intended, reported in its favour, and a gold medal was awarded to the inventor. We look upon it, if successful, almost as important in agriculture as the substitution of the plough for the spade. The steam plough will no doubt follow in course, and cover the immense prairies of the West with golden harvests. Such recreations as this exhibition will afford every well wisher of our country, should cherish. We have no doubt it will attract an immense concourse.

Flatbush is one of the most beautiful villages in our vicinity, about 3½ miles from Brooklyn Ferry; the road is a delightful one. Flatbush exhibits in its soil a luxuriance that is rarely afforded in any part of our country. We understand that means of conveyance will be provided; we advise all to go and witness this novel display. We are desirous to request of the spectators who attend not to enter the field when the mowing is going on;

the location of the field is such as to afford full opportunity for all to witness the performance.—*N. Y. Star.*

On the destruction of Silk Grass or Milkweed.

Mr. Tucker: I have observed on many fields of a deep rich soil, especially meadows, a heavy growth of what are commonly called milkweed, and think if the owners knew how easily they might be destroyed, they would not suffer their best lands to be infested with them. This has induced me to communicate an experiment. When I was a child my father gave me a stick and bade me go whip the milkweeds. His instructions were that I should not cut off the main stalks, but whip the leaves and mutilate them in such a manner as to produce the greatest flow of the juice of the weed. I do not know when this was done, but recollect the weeds had become large, yet had not attained their full growth. Four or five blows were generally sufficient for each weed. The whipping was twice repeated after that at intervals of about two or three weeks. The next summer, but few of the weeds were to be seen, and such as made their appearance were dealt with in the same manner as had been done the year before, which summary punishment was sufficient to drive them effectually from a very fertile piece of meadow, so that they were no longer troublesome.—*Genesee Farmer. Amber, May 24.*

CORN—We have received an ear of corn, pulled on the 4th of July, and nearly fit for the table. It is not forward corn, neither was it raised in a garden, but was pulled in the field, from a cut of about 80,000 hills, in a nearly equal state of forwardness on the farm of Mr. J. W. Brice, Queen Anne's county. This shows well for the coming crop; indeed the season has been highly propitious.

The crops generally have improved very much, and with perhaps some few exceptions, will yield more than the general average for some years past. We have heard of several instances where rye has turned out well, which the owners, in the spring, were strongly tempted to plough up and put in corn.—*Kent Bugle.*

FRANKLINIAN ECONOMY—Aside from Franklin's discoveries in electricity and philosophy, a correspondent in the Washington Sun thus speaks of Dr. Franklin's discoveries in matters of domestic economy:

"To no native American is more honor due than to Dr. Franklin. His science, patriotism, industry, and morality, as well as his political sagacity, have been and are the subjects of general approbation; and, as common property, it is not necessary to dilate upon them. It is his investigating spirit of inquiry, as to whatever new his mind rested upon, and the beneficial results of his observations, that are now brought to view.

"Broom Corn, now cultivated to so profitable an extent in this country, owes its cultivation to Franklin's acute mind. A lady in Philadelphia held an imported clothes whisk in her hand, and, whilst examining it as a novelty, he found a single grain still attached to the stalk; this he planted, and a large and increasing article of usefulness has been thus perpetuated in the U. States.

A paragraph from a northern newspaper of 1836 has a corroborating proof of the value of this discovery: 'The broom straw speculation bids fair to run as high this year as it did last. A week ago speculators were offering \$50 an acre for the growing brush.' "

[The Yellow, or Golden Willow, which now flourishes in most parts of the union, was introduced by the same friend to his country and mankind. In a wicker-work imported basket offered to his view, Dr. Franklin found some of the twigs were sprouting; he took them out and presented them to Mr. Norris, of Philadelphia, who succeeded in raising them very successfully, and to a great height.]

To cure a foundered Horse.—A highly respectable gentleman of this county, a few days since, communicated to a friend of ours the following cure for a foundered horse. He has tried it with complete success in five different cases, some of them very severe ones, and has heard of its success in many more:

Curry the horse with a sharp curry comb, very briskly against the hair, from his hoofs over his whole body, and with sufficient severity to draw blood slightly in places; then jump on him, run him some distance, and he is well.—*Lexington (Va.) Gazette.*

WORMS ON TREES.—The New York Evening Post says, the trees in that city are much infested with worms of the caterpillar kind, which, in some instances, entirely devour the foliage, and leave the branches as naked as in winter. The following has been given as a recipe to prevent their ravages:

Dissolve a quantity of sal ammoniac in water. Dip a brush in the solution and pass it over the trunk of the tree, and this will prevent the worms from ascending from the ground. Take a syringe, and with it throw the water among the branches and leaves, which will cause the worms to let go their hold. This may be done from an upper window, if the tree stands near the house.

LARGE STRAWBERRIES.—*Mount Carbon, vs. New Jersey.*—A few days since we observed an extract of a letter from New Jersey to the editor of the U. S. Gazette, stating that twelve strawberries were picked from the writer's bed, which measured *thirty-nine* inches in circumference—On Wednesday last we received from Jos. White, esq. of Mount Carbon, twelve strawberries, raised in his garden, which measured *forty-six and a half* inches in circumference, and *fifteen* inches in length. The following is the actual measurement of each strawberry:

4 $\frac{1}{4}$	3 7-8
3 $\frac{3}{4}$	3 $\frac{1}{4}$
4 1-8	3 7-8
4	3 $\frac{3}{4}$
3 5-8	3 $\frac{1}{4}$
3 $\frac{3}{4}$	
	46 $\frac{1}{2}$ in. in circum.
	15 in. in length.

The Strawberries are of the kind known as the "Landreth Premium." We challenge New Jersey, or any other state or place to beat it if they can.—*Miner's Journal.*

AMERICAN SILK WORM.—Mr. C. F. Durant, of Jersey city, has discovered that this country has its native Silk Worm as well as the old world, that spins as fine and soft a material as the imported. The cocoon is much larger, yielding about 40 per cent. more than the European worm. They are covered with a kind of shell of compact and hardened silk, which seems to require moisture and warmth to effect the process of hatching. Mr. D. is endeavoring to remedy this difficulty. The hatching being much later than the foreign worm, it is supposed that a second crop may be obtained in the same cocoonery.

QUERCITRON BARK.—In answer to the inquiry of a correspondent from Kentucky, of the Editor of Bicknell's Reporter, of Philadelphia, as to what species of oak this bark is obtained from, how it is prepared, what use is made of it, &c. it is stated that Quercitron is the *Black Oak bark*; that it is prepared by shaving off the outer bark, grinding the inner bark, drying, and packing it in hogsheads. It is used almost exclusively for dyeing, and is sold largely in Philadelphia and New York, from at \$30 to \$40 per ton of 2,240 lbs. It is packed in casks larger than a whiskey hogshead, each of which contains about 15 cwt. The distinction in quality consists in its degree of clearness and brightness of color. It is inspected before sale. Dr. Bancroft first discovered the useful properties of this bark, and obtained a patent for his invention in the year 1775.—*Journal of American Institute.*

[From the French Annales des Arts and Manufactures.]

Methods of Preserving wood from the effects of the weather.—Take three parts of air slackened lime, two parts of wood ashes, and one part of fine sand; sift the whole, and add so much linseed oil as is necessary to form a mass that can be laid on with a paint brush. To make this mixture perfect and more durable, it will be well to grind it on a marble. Two coats of it is all that are necessary—the first should be rather light, but the second must be put on as thick as the brush will permit. This composition well prepared is impenetrable to water; resists both the influence of the weather and the action of the sun which hardens it and makes it more durable.

PATENT OFFICE, }
Washington, July 13, 1837. }

In consequence of the destruction of the records of the Patent Office by fire in December last, Congress provided by law for recording all patents *anew*; and no patent can be given in evidence until the same has been recorded *again* in this office. The law provides for the record of *all* patents which have been issued, whether the same have or have not expired. Such record, it is believed, will be honorable to inventors, and highly useful in the future management of the Patent Office. Arrangements are accordingly made for recording all patents *anew* in this office; expecting that persons holding patents will promptly comply with the law in this respect. It is hoped none will delay transmitting patents, because the inven-

tion may be deemed unimportant. A copy of every patent issued is desirable, as the best means of preventing impositions. Many persons have already complied with the law, and their patents have been recorded and returned to them; and all who have omitted to forward their papers are requested to send them to this office by mail, without delay. In this mode, patents will be secured from infringement, and useful inventions perpetuated. Papers forwarded will be safely kept and speedily returned. Transfers or assignments of patents are in like manner required to be recorded anew. Publishers of newspapers will promote the cause of science, as well as oblige their customers, by publishing this notice.

HENRY L. ELLSWORTH,
Commissioner of Patents.

Winter products of a Devon Cow.—At our request, Abm. P. Holdrich, esq. of Spencer-town had an accurate memorandum kept of the butter made from a Devonshire cow, which calved late in autumn. The result was, that from the 10th December to the 18th January, including both days, there was made from her milk 56 pounds of well-worked butter, nearly equal to two pounds per day. The cow was fed with roots, hay, and buckwheat bran. Estimating it at 20 cents per pound, the butter made during the month, and in the depth of winter, was worth \$11 20; and if we consider this the average product of 8 months in the year, the aggregate amount for that period would be \$89 60. We need no better illustration than this, of the importance of keeping good animals, and of keeping them well.

GREAT CORN.—A friend of ours at Canterbury in this state informs us that there is now growing in that neighborhood a field of corn that measures 8 feet 3 inches in height, and concludes by saying "New Castle county, beat that if you can."

Delaware Gazette.

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3 $\frac{1}{4}$ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs.
JOHN T. DURDING & CO.
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These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	1 50
CATTLE, on the hoof,	100lbs	7 50	9 00
CORN, yellow	bushel	1 00	1 03
White,	"	95	100
COTTON, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana 20a21—Alabama	"	—	—
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's,	"	—	—
SuperHow. st. in good de'd	"	8 75	9 00
" wagon price,	"	—	—
City Mills, super,	"	8 25	8 50
" extra,	"	8 50	9 00
Susquehanna,	"	9 00	—
Rye,	"	6 00	—
Kiln-dried Meal, in hhd.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,	bushel.	7 50	—
Timothy (herds of the north)	"	2 50	—
Orchard,	"	—	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	12 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 50	6 75
Slaughtered,	"	—	—
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	60	—
PEAS, red eye,	bushel.	—	—
Black eye,	"	87	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	4 00	—
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	80	85
Susquehanna,	"	—	none
TOBACCO, crop, common,	100 lbs	2 50	3 00
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrapper, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 80	1 90
Red, best,	"	1 60	1 75
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls. }	gallon.	—	35
" in hhd. }	"	—	33
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 25	—
Wool, Prime & Saxon Fleeces,	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do,	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to

EDW. P. ROBERTS,

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	—	13½
Shoulders, do.	"	—	11
Middlings, do.	"	do	do
Assorted, country,	"	8½	9
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,	"	16	20
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	5 00	7 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 12	2 18
CHOP RYE,	"	1 75	1 87½
Eggs,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	7 50	—
No. 2,	"	7 00	—
Herrings, salted, No. 1,	"	2 87	—
Mackerel, No. 1, ———— No. 2	"	8 00	9 00
No. 3,	"	—	4 50
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	8½	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virgin. 2
Other Branches,	do	Bank of Virginia, do
MARYLAND.		
Banks in Baltimore, par	do	Branch at Fredericksburg do
Hagerstown, ½a	do	Petersburg, do
Frederick, do	do	Norfolk, do
Westminster, do	do	Winchester, do
Farmers' Bank of Mary'd, do	do	Lynchburg, 2½
Do. payable at Easton, ... 1	do	Danville, do
Salisbury, 2 per ct. dis.	do	Bank of the Valley, ... 2
Cumberland, 3	do	Branch at Romney, ... 2½
Millington, do	do	Do. Charlestown, ... 2
DISTRICT.		
Washington, } Banks, ½p.c.	do	Do. Leesburg, 2
Georgetown, } Banks, ½p.c.	do	Wheeling Banks, ... 4
Alexandria, } Banks, ½p.c.	do	Ohio Banks, generally 6a7
PENNSYLVANIA.		
Philadelphia, ½a	do	New Jersey Banks gen. 5
Chambersburg, 1	do	New York City, 1
Gittysburg, do	do	New York State, ... 3a4
Pittsburg, 3½	do	Massachusetts, ... 3a3½
York, 1	do	Connecticut, ... 3a3½
Other Pennsylvania Bks. 4	do	New Hampshire, ... 3a3½
Delaware [under \$5] ... 6	do	Maine, 3a3½
Do. [over \$5] ... 2	do	Rhode Island, ... 3a3½
Michigan Banks, 10	do	North Carolina, ... 6
Canadian do. 10	do	South Carolina, ... 8a10
	do	Georgia, do
	do	New Orleans, 15

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 44½ inches high, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to

EDWARD P. ROBERTS,

Ap. 18.

4t.

Baltimore, Md.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the plate 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Also, a good RAMAGE PRESS, now in operation; price \$60. Also, a STANDING PRESS, iron bound wooden frame, with a powerful screw; will be sold low.

Apply to SANDS & NEILSON,
Office of "Farmer & Gardener,"
Jy 25 4t Corner of Charles & Market sts. Baltimore.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldon Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Casteele Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

Jy 4

J. S. EASTMAN.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

CONTENTS OF THIS NUMBER.

Inquiry concerning spring wheat; amount of bounty on the growth of wheat in Maine; a good proposition in the valley of Virginia to insure a supply of lime; notice of the agricultural survey in Massachusetts; Electro-Magnetic power described; ground limestone as a manure; Clark's method of rearing worms 50 years ago; silk culture in a nutshell; exhibition of horses in Delaware; description of a grubbing machine; Wilson's mowing machine; early maturity of corn; economy of Franklin; cure for a foundered horse; do. for worms on trees; large strawberries; discovery of a native silk worm; quercitron bark; preservation of wood; notice of the patent office; great products of a Devon cow; a great field of corn; advertisements, prices current, &c.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 14.

BALTIMORE, MD. AUGUST 1, 1837.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, AUGUST 1, 1837.

PRINTERS are referred to an advertisement on the last page.

WORK FOR AUGUST.

ON THE FARM.

Harvesting. As your wheat and rye have been cut and got in, your next care must be to secure your oats and hay, and we desire you to bear this in mind, that neither fine clear oats, nor fragrant hay can be made, if either the one or the other be left exposed, after being cut, to the influence of rain.

After your harvesting shall have been completed, then turn your attention to getting out your grain for market, the sooner that is done the less will you lose by vermin, and in nine times out of ten you will find that your grain will command as good a price at this season of the year as any other. Besides the sooner the better this necessary work is off your hand, as being relieved of it, you will be able to avail yourself of circumstances as they occur, and thus turn every thing to the best advantage.

With regard to the crops of wheat and rye which have been made throughout the country, we have assurances in every quarter that they have been good in every direction. Where not thrown out too freely by the frosts of last winter and spring, they may be said to be abundant; indeed, upon the whole, this has been decidedly the best wheat year since 1832, and the grain itself is good.

Meadows. Those who wish to set timothy meadows, should bear in mind that August is the month in which that work is recommended to be performed; but our opinion is, that the later in this month the seeding takes place the better; the hot suns and drying winds which mostly prevail, are eminently calculated to destroy the young timothy plants as they come up. Those who sow the timothy seed alone, will assuredly find their interest in delaying seeding until towards the lat-

ter part of the month—where put in with turnips, it will of course, be good policy to lose no time in getting the seed in early, in order that the turnips may have the better chance of maturing. We have seen some excellent fields of timothy which had been sown with a small quantity of oats, about two pecks to the acre, the latter affording shade to the former during the heat of summer and fall,—and dying and falling on the approach of frost, became a protection to the tender plants of timothy through the winter. It is scarcely necessary to say, that he who wishes to have a clean meadow, must take the trouble to put his ground in a proper state of preparation by good ploughing and pulverization of the soil.

Weeds. Where you are full handed and can spare the labor requisite to it, good service may be performed this month, by gathering weeds of all descriptions and putting them on your dung-heap, or in your cow-yard. A large addition to your manure heap may thus be made.

Draining of Marshes. There is no better period of the year than this for the performance of this service, and he who has any work of the kind to do should begin it at once.

Potatoes. See that your late potatoes are kept stirred and clean.

Turnips. If you have not already got in your turnips, do so without a day's delay; for you may rest assured that you cannot sow too early in this month, and that it would always be best to get them in during the latter part of July.

Sheep. Mix up equal parts of tar and salt and place the mixture in troughs accessible to your sheep, where they may go in search of salt. By this means they will besmear their noses with the tar, and thus get a coating that will prove a barrier to the fly that generates worms in the head of sheep.

Cattle. If you have any two year old heifers, you should recollect that this is a good period to have them served, as they will come in to the pail next spring at a time when there will be good pastures.

In all countries bounded by tide water, where cattle, and especially those that have been brought from a distance, are subject to the autumnal disease, it would be well to keep a mixture of tar and

salt in troughs where they could constantly get it. Those who have not been raised on the place, should most certainly be housed every night during the season when the disease prevails.

IN THE KITCHEN GARDEN.

Cabbages. Savoy and other late cabbages may now be planted out; but recollect if you wish them to come to perfection you must not spare manure.

Radishes. From the beginning till the middle of this month is the time to sow radishes for fall use.

Your *Asparagus* plantations must be kept clean, as also your seedling beds.

Celery. Plant out your late crop of celery, and continue to earth up your early one.

Small Sallading of all kinds may now be sown.

Peas and Beans for fall use, can now be planted.

Keep your melons of all kinds clear of weeds.

ADVICE TO MULBERRY GROWERS.

To persons who may live remote from marts where the *Morus Multicaulis*, and other varieties of the Mulberry are sold, we would respectfully suggest,—that in every case where trees are to be transported a hundred miles and upwards, that it would be better to make the purchase in the fall, soon after the dropping of the foliage, than to delay it until the ensuing spring, for the following reasons; The mulberry is a tree very tenacious of life, and if kept buried from 9 to 12 inches below the surface, would be just as fresh next spring, after being under ground all the fall and winter, as when first taken up out of the ground. It can be removed to any distance by wagon, boat, or other medium of transportation, from one extreme of our country to the other, without the least injury being done to its vegetating powers. If purchased in the fall, all the proprietor would have to do on the arrival of his trees at home, would be to take them out of the package and bury them to the depth mentioned above in the garden or yard. Thus put away, they would remain perfectly secure until spring, when on its first opening—as soon as the frost should be out of the ground—they could be transplanted, and have the full benefit of the entire season of growing. Not so, if purchases are delayed until spring, as the

delay of transportation, and the numerous other incidental impediments, would come in to subtract from the time of growing. As the culture of the mulberry is, in our opinion, destined to become,—indeed, has already become,—an important branch of husbandry in many parts of our country; as the spirit is diffusing itself in almost every section of our vast limits, as our people are neither indifferent to their interests, nor deficient in the capacity to discover them; as there certainly is no more profitable occupation known to the husbandman, nor any offering more inducements to its pursuit, we have felt it our duty thus early to give this advice, and we do it the more readily, as the conclusion, to which we have come, is the result of experience, and, therefore, the more valuable.

We dug a small patch of early potatoes last week, which grew upon a piece of ground 20 by 45 feet, comprising 900 square feet. It yielded 12 bushels, being at the rate of a fraction over 580 bushels to the acre. The ground was a clover sod, was spaded deeply, manured in the hills with ashes; the hills were 2 feet apart, and 2 potatoes of the pink eye variety planted in each—they were worked but twice.

BONE MANURE.

Dr. Humphreys, in his excellent and instructive letters from England to the New-York Observer, pays the following tribute to the efficacy of this manure. As preliminary, he remarks:

"Among the several kinds of manure which have been in high repute, lime and marl are inexhaustible; particularly the former, which the low price of coal brings at a cheap rate. On some soils, and near the kilns, it is used in great quantities. I have seen fields covered with it, just as ours are with barn manure; and when it is spread, the ground appears, at a little distance, as if it were covered with snow.

"But the richest and most profitable kind of dressing which has yet been tried, and which is a new source of wealth to Great Britain, is *bone manure*. It began first to be used on a large scale, in Yorkshire and Lincolnshire, where its influence has been all but miraculous. Extensive tracts of country which a few years ago were wastes, occupied by rabbit warrens, have been converted into one of the finest and best managed farms in England. This signal improvement, though it did not begin, has been carried to its present perfection by the use of the manure just mentioned. Since bone dust has come into general use, the crop has been increased, in many instances, *ten fold*, and in few less than from four or five fold, and the effect has been equally surprising upon the succeeding crops of grain, on the same land."

A manufacture of it is carried on in the western part of this city by Mr. Colson, and we learn

that those gentlemen who have tried it, speak in the highest terms of its fertilizing effects; but how could it be otherwise when bones consist chiefly of lime and oil, in such beautiful proportions as to give to both their highest capacity for imparting fruitfulness to the earth.

We understand, from a friend, that the largest portion of the bone dust manufactured by Mr. Colson is bought for the N. York market, where its virtues being better known are more generally appreciated.

THE BLACK WEEVIL.

A writer for the Farmer's Register recommends the following simple process to clear barns of this pest. When his granaries are cleared of grain, he, once a year, burns in them half a pound of pounded sulphur, closing doors and windows. For safety he makes a bed of sand on the floor, in which he puts the sulphur in a stone or earthen pan. Antecedent to this practice he had sustained serious mischief from the black weevil, since its adoption he has never seen one in his granaries.

The gentleman who communicated this recipe, is "a farmer of the eastern shore of Maryland," and should any son of "Virginia, North or South Carolina, with his arms subdued this pestilent enemy," he desires that due acknowledgments be made to the discoverer.

[For the Farmer and Gardener.]

MR. ROBERTS:—It will, no doubt, be gratifying to many of your readers to learn that the plant so extremely valuable in the fabrication of SILK, is found to succeed to an extraordinary degree throughout this whole section of country.—The MORUS MULTICAULIS has been now fairly tried, to the very margin of the Gulf of Mexico, thirty miles south of Mobile, and I can assure you that its growth, foliage, &c., exceeds that of the same plant raised more northwardly. It is a fact not generally known, that the foliage of all large leaved plants become more delicate as you approach the south. The Tobacco plant is a singular case—but the same remark will apply to the foliage of trees having large and rough foliage in the north, such as the different species of oak, the hickory, common mulberry, &c. The foliage of those plants, larger than in the north, become much more interesting and beautiful, exhibiting especially in the first stages, a delicacy of hue and appearance, that is singular. The leaf of the Morus has been tried fairly in the vicinity of Mobile, and the success in feeding and production, has been found decidedly superior—a number of enterprising and respectable persons are turning their attention to the subject of SILK.

The success of our northern citizens is rousing the enterprize of the south, and the facts daily given to the public, indisputable, connected with the fabrication of that article, is creating a strong interest, throughout this section of country.—

The unbounded market for the raw material, with the every day increasing demand for the manufactured article, are highly interesting facts to the country, particularly after admitting the superiority of the article we now know the country can produce. I am truly gratified to be able to say, that a principle of humanity appears a predominant impulse, in directing the zeal of some of our planters to the cultivation of silk. Humanity has been long sounded in the ears of our extensive planters, that it is hard to drive the good old faithful slave, still into "swamp-field," and still worse to sell them, after getting the best of their days. The cultivation of silk comes in as a happy relief—it backs the claims of humanity, and even urges that of pecuniary interest. Life is made useful in a pursuit proportionate to declining age and infirmities, and even gives ease to both, while it is lucrative. There is no doubt that a prodigious profit would be the result of a few years, by following up the plan of selecting the aged, the infirm, and the very young slaves, applying them on a fine healthy hill in the pine woods, to the fabrication of silk, and send into the fields, under the burning rays of a southern sun, only the vigorous, the healthy, and the strong.

That this portion of the United States possesses a climate by far superior for the production of silk, not only as regards the raw material but the worm that produces it, is certain. The size of the worms raised here, the singular briskness with which they move throughout the season of eating, as afterwards, most certainly indicates not only high health, but a most congenial climate, while the singularly, steady and mild state of the atmosphere, so remarkably undisturbed by changes unfavorable to the worm, during the eating and spinning season, at once places our climate for the production of silk in an enviable point of view. It is undoubted that we do not require even buildings—a common shed with a curtain surrounding of matting would be perfectly sufficient for the worm, to secure it from all casualties. That two crops can be made in the season is now beyond doubt, and some gentlemen contend for three. Were I to select a situation for the production of silk, I would most certainly give a decided preference to a tract lying north and west of Mobile. It is a high dry pine country—fine water, and singularly healthy. A great proportion of the land possess a fine clay foundation, in which the Morus and White Mulberry is found to thrive admirably. This section possesses a great share of that peculiar kind of beauty known to those acquainted with the pine regions of the south. The soil is found to produce Rice on the highest land—Peas, oats, potatoes, equal to any other, and when aided by manure, cotton and corn. Indigo in its natural state is always a fair crop. The peach, the fig, apricot, plums, &c., excellent, and even the apple. Cattle keep in good order during the year, and hogs find plenty in the pine woods, and become often in a year's growth good meat. What will appear unfeasible to northern ears, is, that the heat of this section of country is felt much less than in Maryland and Pennsylvania, while the sultry nights and the sultry day is unknown. To those who couple in their imaginations, latitude, and heat and cold together, this will be "a hard saying, who can bear it?"—but such must recollect that the genial mild

breeze of the Gulph of Mexico plays steadily over this section of country.—It is populating fast.

A READER.

Alabama, July 10.

[From the New England Farmer.]

NIGHT SOIL

Is not alone distinguished from the odor of all animals by the extreme fetidness of its smell, but it is also known to be a stronger and hotter kind, and probably differs in its own qualities in proportion to the sort of provision from which it is obtained; as there is every reason to suppose that the excrement arising out of animal food, is of a more active nature than that which is the produce of vegetable diet. In all those places where the real value of this feculent matter is duly appreciated, and its preparation well understood, the aversion which its use excites, is surmounted, and it is then preferred to all other manure.

The repugnance to this manure, proceeds from an idea that this manure communicates an unpleasant flavor to plants grown in the land upon which it has been used; and it has been also thought to have a bad effect upon the soil. Both of these objections are, however, groundless, when due care is applied to its management. Instances are indeed said to have occurred, in which horses have refused the hay made from grass which had been manured with night soil. But if credit is to be attached to the assertion, it must have been produced by its having been spread in a fresh state, and upon grass of a very forward growth. In proof of this, is an instance mentioned in the Norfolk Report, of a field newly laid down to grass, every part of which proved very poor, except 2 acres, on which four wagon loads of night soil were spread directly, without being mixed with any other manure. The field was fed off, and the effect of the night soil, is said to have been so great, that while the rest of the field never seemed more than half filled with useful plants, this was thickened surprisingly, and grew most luxuriantly; so much so, that the cattle, neglecting the rest of the field, were perpetually feeding there, until by autumn, it was pared down, like a fine green lawn, by the side of a dusky, rough and ragged pasture.

In other accounts, it is indeed reported as the most capital manure, of all other sorts, for pasture; two wagon loads securing "a carpet of herbage;" and no bad effect is perceptible on vegetables, though kitchen gardeners use it with profusion. All unpleasantness of odor may indeed be prevented by the mere use of ashes or lime; and were these thrown upon night soil, or into privies which have no communication with sewers, the ashes made in every dwelling-house would so completely absorb the fluid, that a solid heap of manure would be produced, that might be afterwards removed without difficulty or offensiveness. It is collected in large quantities in London; and there was, a few years ago, a large manufactory for its preparation, in which it was dried and exposed to the sun on flag-stones, after which it was broken in pieces, and removed under cover, where it was partially mixed with lime and completely reduced to powder.

In this state it was packed in barrels, and export-

ed even to our colonies, where it was used as a top dressing; but it was chiefly employed by market gardeners, who used to sow it in drills along with their seed; and, judging by the price at which they bought it, there can be no doubt that they found its use to be singularly advantageous; but the process has been abandoned; for, having been carried on in the heat of the town, it occasioned complaints of its offensiveness.

Its operation has been found quicker and more powerful than farm yard dung. Farmers who have used both on adjoining land, have observed that the crops are always more exuberant in the first year, where the night soil has been laid, but that little or no difference has been perceptible after. To every load of night-soil should be added about four or five times the quantity of pond mud, or loam, when used as a top-dressing. Arthur Young gives the result of two experiments on manures of different kinds and qualities, applied to potatoes, on a poor gravelly loam, in the following proportions per acre.

	1st crop.	2d crop.
No. 1. No manure,	120 bush.	140 bush.
2. Night soil, 10 wagon loads,		
each 96 bushels,	600 do.	640 do.
3. Night soil, 6 do. do.	650 do.	500 do.
4. do. 2 do. do.	500 do.	300 do.
5. Bones, 10 do. do.	650 do.	640 do.
6. do. 6 do. do.	640 do.	560 do.
7. do. 2 do. do.	560 do.	240 do.
8. Hog dung, 60 one horse		
cart loads,	480 do.	300 do.
9. do. 30 do. do.	480 do.	160 do.
10. Yard comp. 60 do. do.	300 do.	240 do.
11. do. 120 do. do.	480 do.	300 do.
12. do. 30 do. do.	140 do.	140 do.

British Husbandry, vol. 1st, p. 267.

[From the Maine Farmer.]

WINTER WHEAT.

Mr. HOLMES:—In the Maine Farmer, of the 30th May, there is a valuable communication from Mr. James Ronaldson, on the culture of winter wheat.

It is a subject of the first importance to the farmers of this State; and every individual farmer who is anxious to raise bread for our own consumption, ought to feel it a duty to make limited, or extensive experiments, according to his ability, for the purpose of testing the value of Mr. Ronaldson's suggestions, and whether they will suit our soil and climate. It is also the duty of those who have already made experiments, in any way connected with the mode proposed by Mr. Ronaldson, to disclose the same.

Mr. C. Fairbanks' communication on the subject is useful and encouraging; and under this impression, I shall state what course I have pursued, and my reasons for the same, and then offer a few remarks on the proposed plan.

From my early acquaintance with English husbandry, I gave the preference to winter wheat, and imported, in the year 1788, a few bushels from Liverpool, of the 'White Lancashire Winter Wheat,' which succeeded very well, and from this wheat 54 barrels of good flour was manufactured at a flour mill in Hallowell, in 1794, and shipped for sale to Boston. Twelve years after the im-

portation, a bushel of this wheat was sown in the town of Corinth, county of Penobscot, by Henry Snow, on an acre and a quarter of burnt land, and produced forty bushels of prime wheat. I brought four quarts of it home, and from its produce, continued for a few years to sow it on ploughed land. I think about ten years after, I procured from Connecticut, a superior quality of winter wheat, called the Taylor wheat, which was first raised in Virginia, by a gentleman of that name. This kind I have continued to cultivate, and from this, or my imported wheat, I obtained from one bushel, ground at the mill at Gardiner, 52½ lbs. of good flour, including the toll. The average yield has been thirteen to fourteen bushels to the acre, which I considered equal to seventeen or eighteen bushels of spring wheat, with the advantage of preparing the land, and sowing the winter wheat at the season of greatest leisure.

Being satisfied that even in ploughed land where the soil and make of the land was favorable, winter wheat was preferable, I tried the following experiments:

1. I sowed in drills in my garden, in the spring, some winter wheat, and during the season, until September, frequently cut it down. A smaller proportion was winter-killed, than in the open field.

2. In the second experiment, the wheat was sown after a crop of oats. With the oats I sowed twelve pounds of clover seed. When the oats were nearly ripe enough to reap, the grass-hoppers made such havock by cutting off the grain, that the ground was strewn with seed. The oats were immediately reaped, the clover and stubble ploughed in, and about the middle of August, the winter wheat was sowed. In a short time, the verdure was remarkable, and on examination, I found that the oats which had been in and on the ground, had sprung up and covered it. Aware that the winter would kill the oats sown at this time, the effect on the wheat was carefully watched, and the oats proved a protection to the wheat in winter, and with a dressing of a bushel of plaster of Paris strewn on an acre in the spring, served as a top-dressing. The wheat grew vigorously, and there was an increase of produce from it. Since that time I have always sowed a bushel and a half of oats to the acre, with the wheat, and spread a cask and a half of lime on the same quantity of land.

3. A third experiment was in clearing up six acres of a bush pasture. No grass seed had been sown, and what grass was on the land was from seed dropped by the cattle fed on it. It was ploughed deep in the fall, in the spring harrowed, cross-ploughed, and harrowed again, until it was mellow. For two years, oats were sown with 12 pounds of red clover seed, and ploughed in, after reaping the crops of oats; and in August, after the second crop, winter wheat was sown. The soil was a rich loam, and the form of the land was in moderate swells. Owing to this, the crop was uneven, as the snow drifted deep in some places, and in others the land was bare. The wheat was vigorous, 5 feet 4 in. in height, and the ears over five inches long. The crop was a profitable one, and for three years after, the land produced as much grass as could be dried on the ground.

4. My last experiment was sowing in the spring a small piece of land with winter wheat. It lay next to the sheep pasture, and was occasionally fed by the sheep until September. This experiment did not answer, probably from the want of previous cultivation; and the snow not covering it during the winter.

As regards Mr. Ronaldson's proposal of sowing the winter wheat, so early as to raise a crop of barley on the same land as the winter wheat, there is the following objection. Whatever crop is raised that produces seed, and quantity sufficient to repay the labor, must exhaust the ground, and in this case the barley will take from the wheat a portion of the nourishment intended for it. For this reason, will it not be better to sow oats or barley for a crop early in the spring, with twelve lbs. of red clover seed, and as soon as this grain is reaped, immediately to plough in the clover and stubble, and sow the winter wheat with the oats as proposed before? The growth of the clover by this mode will replace what the crop of oats or barley has taken to manure it.

This subject is a very important one, and if by experiments we can secure a mode of cultivating winter wheat on ploughed land, that would be profitable, it may be the means of increasing the quantity of wheat raised, as well as improving the quality.

It is a fact that winter wheat is a sure crop on new land, where the growth has been cut down, and recently burnt off. In the State of Maine, a great quantity of new land is annually brought into cultivation, and the use of winter wheat as the crop, will have other advantages besides its increased value. The farmer by this means will have the whole of the season from the spring until the first of August, (and on burnt land a later period will answer to sow the wheat) to burn and clear his land, without interrupting his labor on his spring crops, and will not depend on favorable weather to burn off the trees for spring grain.

CHARLES VAUGHAN.

June 19, 1837.

THE CHINTZ BUG IN CORN.

People seen generally to have very contradictory and inconsistent notions about the nature of trouble. What one would look upon as a very annoying and troublesome matter, another will profess to consider as of "no trouble at all," and some, by the habitual use of the latter sentence, upon all occasions are frequently led to make exaggerated applications of it. The following from a Southern paper, is an evidence of this. The writer, speaking of the loss of corn by the chintz bug, and suggesting a plan for their destruction says:—"As soon as these insects leave the wheat, they commence upon the corn, destroying each stalk before they leave it. The husbandman must take them at the onset. In order to prevent them from lodging, let the interstices of the blade and stalk be filled with sand or loose dirt, flatten the earth at the root, by clapping it with the hoe, and then shake the insects off. By this means they will all fall on the hill, where they can be beaten with the hoe, and covered over with dirt so as to prevent their recovery. The hill must be clapped smooth with the hoe each morning, and left in that way, so as

the better to get at the bugs the next morning. This process should be followed up for a few mornings, which will be sufficient to prevent them from getting headway in the field, and will destroy them for the season. The experiment is well worth the little trouble it will occasion."

"Clapping the hills smooth with a hoe each morning" in some of the forty acre fields of corn that we have seen in some parts of Maryland, must be no ordinary task, but one that we suppose, however essential to their welfare, very far from being a matter of "little trouble."—*U. S. Gazette.*

TOPLESS POTATOES.

We were, the other day, shewn a curious specimen of new potatoes, that were grown without any top, or leaves. About five weeks ago, Mr. J. H. Hill, of Waterville, planted some potatoes of the common kind in the usual way. One or two hills did not come up, and he last week dug down to them and found that the potato which he had planted, and which was a whole one, had but out several tubers.

Two of them were as large as a pigeon's egg, each; and there were several smaller ones beginning to show themselves. There was not a sign of any top or leaves to be seen. He found another hill in which the same process was going on.

We do not recollect of having seen an instance of the kind.—The growth of the new tubers must have been quite rapid, having grown out and formed to the size above mentioned in five weeks, of not very warm weather. The question suggests itself—how long and how large will they grow without any stalk or leaf to prepare sap for their nourishment? and also, will they continue to grow after the parent potatoe becomes decayed? and if so, from whence comes the nutriment that gives their increase?

The potato that was planted is sound and hard yet.—*Maine Farmer.*

BEEES AND HONEY.

In passing through the garden employed by the American Institute, our attention was directed to some boxes of honey, of a clear white and beautiful transparency, such as has seldom been seen in the New York market. It is presented by Messrs. Wilcox and Cone, of West Bloomfield, Ontario county, Ohio. One of the firm has furnished us with the following statement:

Last spring we had more than 220 swarms; this fall we had over 420; nearly all of the young swarms are good to winter over. We have taken from our bees 3,700 lbs. of box or cap honey; in addition to this we furnish all the vicinity where we live with boxes, showing them how to manage, promising to buy all the honey that is built in them. This, added to our own, made 5,648 lbs. All this was taken away without destroying a single hive of bees. Near seven-eighths of this honey was of the white, such as was exhibited to-day.—It arrived in New York market on the 9th of September, and nearly two-thirds of it is already sold. We have adopted this plan to make our bees profitable, and not destroy an insect that is such an example of industry.

Wishing to give our readers some information respecting such an instance of successful busi-

ness in the hive, we wrote to Messrs. Wilcox and Cone. From their very obliging answer to our inquiries we copy the following.

Our hives are of almost all descriptions commonly used, having bought many of them. We prefer the smaller sizes, such as will hold about thirty pounds of honey well filled, as that will be sufficient to winter a common swarm, and such hives swarm the most. We procure our honey from a box of about seven inches square, placed on the top of the hive. The box should be made to fit very close to the hive and no communication out of it only through the hive. The hole should not be less than three inches square.—These should be put on old hives before the bees begin to gather from the white clover, and on the young swarms when they are first put into the hives. In this way instead of the bees laying on the outside of the hive idle, as they commonly do, they have room within the box, where they continue to build, and gather till they are ready to swarm. Many of our swarms do not work on the boxes at all. We average from 7 to 16 lbs. from every old swarm. Last year, we got over 16 lbs., it being more than a common season for honey.

We have not been troubled much with the moth; having hives together, the birds keep them mostly subdued. We think it the best plan to raise the hive, so that the bees can just pass out all around, they keep the bottom board clean of comb dust, so there is less chance for the millers to deposit their eggs where they will not be destroyed. Care should be taken to kill all that can be found on and around the hives every day or two.

We use no means to furnish our bees with food excepting to feed some light swarms towards spring; which we do, by putting comb filled with honey on the top of the hive. Bees flourish the best where there is plenty of Elm, Sugar Maple and Basswood, and where the soil is natural for white clover. Elm and Maple blossom early in the spring; after the spring flowers are gone, bees stir but little, until white clover begins to blossom; if it fills well with honey, bees soon fill their hives and begin to swarm; if not, they swarm late, and the swarms stand a poor chance; the Basswood and Buckwheat are the principal flowers they love to gather from. Sometimes there are honey dews which help them much.

Our box honey, which is pure and free from bread, is gathered principally from clover and Basswood blossoms. Our hives stand in the same situation winter and summer. We are careful to have the top secured, so as to keep snow and water out, but admit a draught of air through the hive. Every hive should have a three quarter or half inch hole from four to six inches from the bottom, in front, to afford air in winter. In very cold weather, frost accumulates in the hive, from the breath of the bees, and in mild weather it melts and runs down to the hole at the bottom and freezes to ice, and shuts out the air, if there is no other air hole. Many bees are smothered, greatly for the want of this knowledge. Bees winter the best in straw hives, but do as well in summer in board or tub hives.—*N. E. Farmer.*

EASY METHOD OF HIVING BEES.

Mr. Moses Winslow, of Westbrook, has described to us his method of hiving bees which

he has practised with complete success for fifteen years, and has never known his bees to pitch on any other place than that prepared for them.

Drive down two stakes, about four feet apart, fifteen feet in front of the bee house; tie a pole across these stakes about three feet from the ground; then take a board about one foot wide and twenty feet long and lay one end on the ground at the front of the bee house and lay the other part on the pole between the stakes. Put up this board in the beginning and let it remain till the close of the swarming season. The bees will pitch on the under part of this board, and that end which lays on the ground should be raised to a level with the other and put on a barrel, box, or something else. Then turn the board upside down and place the hive over the bees and fasten it with props to prevent the wind blowing it down. By having a board not more than a foot wide, the hive will extend out over the board and the less likely to kill the bees when it is placed over them, and it will leave room for the bees that may be outside the hive to pass into it. Mr. Winslow observes that he has sometimes found three swarms at once pitched on one board in different places. When he first puts up the board he usually rubs on it some honey or salt water, herbs or the like, but this may not be necessary.

We think that this method of hiving bees is a great improvement, as it saves time and trouble, and danger of being stung, and injury of trees frequently occasioned by cutting them in hiving bees. Another great advantage, the timorous can be saved the misery of being frightened half to death lest they should be stung while on a ladder or tree, without the privilege of running from the enemy.—*Yankee Farmer.*

STIMULATING MANURES.

Most of our farmers are somewhat averse to trying new experiments in the art of cultivation, and yet of all the arts which are practiced by man, there is none in which there is more need of them. Those experiments which require great expense at the outset, should be instituted by Societies, or by those who have both money and time to devote to them. Many very important experiments may be tried by the man of very moderate funds, for they may cost but little else than the time consumed in performing them. One subject which we would name is stimulating (nutritive) manures, though perhaps the word would be better than stimulating. After the plant or crop is up, what is the best application to cause it to thrive? Liquids in which manure has been soaked are often used for particular purposes. We recollect that an old friend of ours once amused himself by pampering a squash vine, which he pushed forward to an immense length, by watering it every day with a liquid which he drained from his pigsty. He applied it not only to the main roots, but also to the little radicles which put out at intervals along the vine. No doubt there are many articles, cheap at cost, which may be used to great advantage.

We quote the following use of the *chloride of lime* from a French work. Mr. Dubuc, a French apothecary, has discovered that muriate of lime (chloride of lime dissolved) is a very active manure, or vegetable stimulant. He dissolves about

two and a quarter pounds of dry chloride, in about sixteen gallons of water, and with this solution waters the plants at distant intervals. He sprinkled a light soil with this fluid, and eight or ten days after, planted it with maize, and from time to time during the season watered the corn with the same solution. Another portion of corn at six feet distant, he watered with common water. The former yielded double the produce of the latter. A large variety of plants and garden vegetables were tried in the same manner and with similar results.

The sunflower, (*helianthus*) which at the place rises only six or eight feet, grew by this treatment to the height of twelve or fourteen feet, with flowers whose discs were eighteen or twenty inches in diameter, producing seeds which yielded half their weight in oil, good to eat, and exuding from its centre a transparent vein like turpentine, very odorous and drying easily in the air. Potatoes were also tried. They were planted on the 1st of May, 1822, in two quarters, six feet asunder; the one was watered with the solution, and the other with water from the cistern. They were gathered on the 10th of November.

The bed which had been watered with the solution, and only three times during the season, produced potatoes six inches long, twelve in circumference, and weighed nearly two pounds each. The others were in general only half as large, and their stalks in the same proportion. Three or four waterings with the fluid at distant periods are considered sufficient. Some ascribe its action to electrical agency.

Allowing one half the above statement for the natural enthusiasm of the French, when any thing new occurs among them—the solution must be a valuable stimulus for some plants. The chloride of lime can be had at the paper mills, or at the apothecary's, for a few cents per pound, and the experiment may be tried, and if the good effects described above, are corroborated, it certainly will be a valuable auxiliary.—If it proves to be of no worth, still the experiment will be valuable as refuting the above statement, and proving that the results obtained by Mr. Dubuc must be attributed to something else.—*Maine Farmer.*

From the Germantown Telegraph.

CORN—SUCKERS.

Some persons without understanding the natural history of the plant, at the last dressing pull off the suckers, which is ruin to the crops, as they are absolutely necessary, not only to filling out the ends of the most of the first ears, but to filling out the late ears in some degree.

The time in which the male blossom on the main stalk remains in vigour is not more than six days, when the season is good; but if the weather is hot and dry, or is very stormy, it is not so long. And this length is only enough to fructify the earliest ears in which the female blossom comes out first from the germ of the lowest grains, and present themselves in circles at the end of the corolla or husks, and as they come out, are impregnated, and thus they are every day and every hour presenting new circles of female blossoms, until the whole are thus impregnated. But if the heat is so excessive as to kill the male blossom before the whole of the female blossom has come out of

the corolla of husk, then if there are no suckers to supply the deficiency of pollen, there will be a portion of the upper end of the ear that will be barren of grain. To supply this deficiency of pollen, Providence, in organizing the corn plant has ordered that the three lower joints should produce suckers that should come up in succession, to supply a continual source of the fructifying principle to the whole succession of ears that may come out for the space of at least three weeks, after that on the stalk has been exhausted. And on this succession of male blossoms, the greatness of the crop depends. And the land should be so rich as to force out at least two suckers on every stalk, or no very great crop should be expected. But if the land is so rich as to produce these, then instead of having the usual crop of about 35 bushels to the acre, the careful farmer may expect from 80 to 120 bushels with very little extraordinary expense, and this land will be prepared for other crops. You will please to indulge me further to observe on the culture of corn, that to manure poor land in the hill is bad cultivation, although it is true that by this mode, the early growth of the corn is promoted; but the moment the roots of the plants extend beyond the manure, the growth of the crop is checked, at the most critical season when the suckers and ears are setting, by which it often happens that the stalk still runs up, and the male blossom comes out and is spent before the female blossom appears at all. But if the shovel full of manure that had been put in each hill, had been incorporated with the soil, the early growth of the crop would not have been so rapid, but then the growth would have been equal in all parts of the plant, and a crop would have been received in proportion to the goodness of the soil and preparation and attendance given it.—*[Anon.]*

FARMERS, LOOK OUT FOR THE WEVIL.

This insect destroyed a great deal of grain last year in some parts of the country, and every one who has grain growing ought to sow on lime or ashes at the proper time for applying the remedy, lest these insects should be at their work of destruction, or examine frequently and carefully, and apply it as soon as they commence their work.

In our last number but one we published an article by the Rev. Henry Colman showing that slacked lime sown on grain as it was flowering would destroy the wevil. It should be sown when the grain is wet or the dew on. In that article it is recommended to sow 1 peck of lime to the acre; but many farmers think it best to sow more; as it is supposed that there is no danger of injuring the grain by applying more lime. We have applied slacked lime to tender cucumber and other vines without injury.

A farmer in Kennebec, last summer, when he found the wevil making ravages among his wheat, sowed on it common wood ashes, 2 1-2 bushels to the acre, when the dew was on, and in a few days he found that the insects had entirely disappeared and his wheat was good.

The wheat insect is a small fly which deposits its eggs in the hull of the wheat when it is in full blow, as the hull is then open. These eggs produce a number of maggots to each deposit, which are large enough to eat the wheat when it arrives

at its milky state. This fly deposits its eggs at the time the wheat is usually in blow. Late sown wheat usually escapes the ravages of this insect, as the time of depositing its eggs is past before the wheat blossoms.—*Yankee Farmer.*

[From the Johnstown, Pa., Sky.]

SILK CULTURE.

We have often thought that silk might be advantageously raised in this climate, and we are now more convinced of it by having visited the silk establishment of the Miss FULLERS in this place. These young ladies have this season fed several thousand silk worms from the common black Mulberry, which grows in the woods in the vicinity of this place. They bring the leaves daily from the distance of between one and two miles, and have had the pleasure of seeing the worms thrive under their attentive care. They have now on hand a large quantity of Cocoons, from a part of which they have drawn, on the common reel, a beautiful sample of silk of a strong texture and fine appearance.

We applaud the perseverance and industry of these enterprising young ladies, and hope their exertions may be profitable. They certainly deserve the approbation of the public for the spirited experiment which they are making. We expect their example will be followed by others, and believe the day is not far distant when silk will become a staple of the Alleghenies. The common Mulberry is indigenous to this country, and would no doubt be much improved by cultivation. We are well convinced that it will produce silk of a good quality, but probably not of so fine a texture as the Chinese Mulberry. We believe that the Chinese Mulberry can be cultivated here, and under this impression the Editor of this paper sowed this spring a quantity of seed, which now exhibit a number of thrifty plants. If they be able to bear the rigor of our winter months, he will have the satisfaction of having first introduced into this section of country, an article, which may hereafter prove beneficial.

A correspondent of the Maine Farmer, after speaking of fine crops of grain, observes—

But have we nothing to fear from a blast coming over these fair prospects of ours? Yes; the wheat grower has much to fear from the weevils, destructive insects, mildew, &c. and it behooves every man, whether he be farmer, merchant, lawyer or minister, who may know of any means by which wheat can be preserved from these destroying insects, and carried thro' to maturity, to communicate it to the public, that all may be benefited by such information; and he who will keep back that which would be really useful to the working class, is a selfish man, and is not doing as he would wish to be done by.

Holding this to be good doctrine, I give the favorable result of sowing ashes on wheat, as told to me by one who can always be depended upon.

Mr. Herrick, of Poland, informed me that a year ago last spring he had 2 1-2 bushels of wheat sown on one piece—ground all alike—and on one bushel of sowing, he sowed on two bushels of strong ashes. He sowed on the ashes at the time of a heavy dew, and when the wheat "was just coming into blow"—he sowed as much as he could on the wheat heads. The result was that from

the one bushel of seed, he got 15 bushels of wheat entirely free from weevils, and from the remainder, 1 1/2 bushels of seed, he got only 5 bushels of poor blighted wheat, almost wholly destroyed by the weevils. The whole was sown at one time—ground manured alike, and the only difference in the management was the addition of the two bushels of ashes. Is not so simple and so cheap an experiment well worthy of the attention of wheat growers?—If ashes are not handy, I would recommend sowing on lime, in lieu of ashes.

PROFITABLE DAIRY.

The dairy business having become so important a branch in the department of the agriculturist, that I feel it my duty to communicate, through the medium of your useful paper, the result of one of my farmers, a gentleman by the name of John Bush. He had fourteen cows of the common country breed, but a little better, on account of being better fed. He raised six calves, which were fed on milk ten weeks.

Made 2342 lbs., of first quality of Cheese, which sold at \$8 per hundred,	\$187 36
Made of Butter, 1591 pounds, the average price 19 cents,	302 29
Six Calves at \$3 a head,	18 00
	\$507 65
Ten hogs fed on the skimmed milk and whey, worth, say \$3 per head,	50 00
	\$537 65
Hay and pasture for the 14 cows, at \$10 per head,	140 00
	\$397 65
Net proceeds,	28 40

Such were the returns from a lot of cows that cost \$20 a head.

Mrs. Bush pursued the old fashioned way, by skimming the milk and churning the cream, and our friends in Ithaca preferred her butter to any other brought to that market.

We have tried the method of making butter in winter by heating the milk in the pans after straining, to 130 Fahrenheit thermometer; the quality is a little improved, the quantity more, and the labor of churning is less than one half the time required in the old way.

The washing of butter in cold hard water or soft, when taken from the churn, we think injurious to the quality of it, and takes from it that peculiar flavour which we so highly prize. If you think the above statements will be useful, let them find a place in your Genesee Farmer.

LEWIS BEERS.

Gen. Farmer.

A suggestion for the coming year.—A gentleman of high respectability informs us, that the following mode of sowing winter wheat in the spring, has been partially adopted in Tennessee with the happiest success. In early winter the seed grain is put into casks, and water enough added to soak and cover it. It is then exposed so that the water becomes frozen, and it is kept in this state as far as practicable until the soil is

fit for its reception in the spring. It is well known that the operation of frosts upon the seeds of winter grain has the same effect as if it is sown in autumn—as wheat or rye sown at the setting in of winter will grow and mature. The advantages which are experienced from sowing in the spring, are, 1st, that the grain is not subject to be winter killed; 2d, it escapes the hessian fly in autumn, and possibly it may escape in the spring; 3d, the ground being fresh stirred for spring sowing, the growth will be more vigorous; and 4th, as it will come into ear late, there is at least a probability that the crop may escape the grain worm. The advantages are so manifest, that the experiment is worth a trial; and we shall feel obliged to some Tennessee correspondent who will give us the details and result of the practice in that state.

The ancient Romans so highly esteemed the employment of agriculture, that the highest praise they could bestow upon a man, was to say that he cultivated his own lands. Their greatest and most illustrious men in the early ages of the Republic devoted their time to this occupation—that is to say, they were farmers. Their greatest generals, likewise, during the intervals of peace, were in this habit, and prided themselves upon tilling the soil. In republican America this useful art seems to be undervalued, because it is not sufficiently splendid; it is not so eligible for ambitious young men, who look to their employment and to their emoluments for their reputation. We would say to them, however, if they are desirous of a steady increase of wealth, let them till the soil; if they are desirous for a good and unenvied reputation, let them be farmers. It is idle to suppose that a young man who is concerned in trade is really any more respectable in this community than one who is engaged in agriculture or a mechanical art. The great majority of the people of this commonwealth are sufficiently intelligent yet to estimate an individual according to his personal merits, rather than by his occupation and calling, and if any occupation be more respectable than others, it ought surely to be that which has been the favorite and the professional occupation of some of the greatest men in all ages. And this can surely be said of agriculture more than of any other private employment. Some of the greatest philosophers have written upon agriculture, and some of the greatest of heroes have practised it with their own hands.—*Boston Statesman.*

Spring Wheat.—The Westminster (Md.) Carrolltonian states that some of the farmers in that section are turning their attention to raising spring wheat, and much interest is felt to ascertain whether their soil and climate are adapted to its growth. It says, "some experiments have been made the present season, and we have been made acquainted with the result in one instance, in which it has proved successful. We have now in our office a bunch of heads, taken indiscriminately from a field belonging to James Renshaw, Esq., of Adams county, which are remarkably large and well filled. We are informed the crop is a most luxuriant one, the stalks standing very thick upon the ground, and the heads generally of the size of the sample. The seed was imported from Europe, and was sown the first of April.

[From the New York Star.]

THE NATIVE AMERICAN SILKWORM. NEW PLAN FOR THE WORMS TO WIND THE COCOONS.

Mr. Editor—Since the receipt of your paper yesterday I received the Nantucket Inquirer of 15th inst., in which Mr. Jenks asks for further intelligence in relation to the articles on the Silk Worm, published in the Star of the 3d inst. As the words "six different plans for the worm to wind the cocoon," were published verbatim as I expressed them in conversation with you, the call seems to require some explanation on my part. I will give it briefly, thus: "It is so many contrivances to accommodate the insect in its preparation for 'winding up,' or so many different contrivances on which (not round which) the larvæ may suspend and wind the cocoon. One of the plans may be described thus: nine laths $\frac{1}{4}$ inch thick, $1\frac{1}{2}$ inch wide and 40 inches long, placed on edge, horizontal, parallel to each other, and 1 inch apart in the clear; these are connected by a lath, $11\frac{1}{4}$ inch long, fastened across the ends; the whole forming a grate of 9 bars $11\frac{1}{4}$ by 40 inches.—Five of these grates, placed parallel to and above each other, $\frac{3}{4}$ inch apart in the clear, connected by a single nail at each corner, with a lath $9\frac{1}{4}$ inches long, standing vertically on end, forms one plan, which is probably the best of the six, and in the operation of some good judges is superior to all other plans (not excepting the European plan of bushes and branches of trees) for economy, both in the space which it occupies to accommodate an equal number of worms, and the expense of construction. The 46 laths required for its construction are worth 6 cents, and can be made with the labour of one hour, worth 12 cents—making in all 18 cents. The worm winds the cocoon between the bars and between the grates, when by removing the 4 vertical laths at the corners the cocoon can be cleared out in a few minutes, certainly in less time, and, in better condition, than the same number can be removed from among bushes and leaves.

The native American Silk Worm feeds on elder, which is its principal food, and from it spins a cocoon of good silk, strong, soft and lustrous, though coarser than that of the Asiatic worm; the smallest cocoon in my possession, from the native American worm, is 70 per cent. heavier than the heaviest of the Asiatic. A fair average of the native cocoons are nearly 300 per cent. heavier than the heaviest of the Asiatic. A fair average of the native cocoons are nearly 300 per cent. heavier than most of the Asiatic. I weighed to-day a fair average of the native American cocoons with 4 different kinds of Asiatic, from my own raising this year—the weights show the quantity of silk, without the chrysalis, as follows.

Native American cocoon	17 grains
Asiatic large white cocoon,	$6\frac{1}{2}$ do
" bright white cocoon,	4 do
" Monti di Brianza, a pale yel.	3 do
" Golden Yellow	2 do

The ova of the two last named were imported by Mr. Tinelli the present year; they are much cultivated in Italy and Spain, and produce the finest silks in Europe. The Monti di Brianza is particularly famed for receiving and retaining the most beautiful dye. By the above you will perceive that the native American furnishes 850 per

cent. more silk than the Golden Yellow Asiatic.

A description of the Native American Silk Worm may enable Mr. Jenks to recognise an old and familiar acquaintance, which he has often frightened from its resting place with the exclamation "Oh! what a beautiful butterfly," pronounced in a tone too loud and too harsh for such sensitive antennæ.

It ranks in Linne's System of Nature in the Animal Kingdom, Class 5, Insects order III. Lepidoptera, Genus, Phalaena. The Moth or perfect insect is without proboscis, and therefore cannot eat; it has Antennæ 2 pectinate and black, head white, eyes 2 black, thorax red, abdomen entirely surrounded with alternate red and white bands, wings 4 brownish gray, lighter in the male, interior of 2 upper wings red, with one large ocellate spot near each exterior, and 2 smaller and the distinct in the margin; from the anterior to the posterior is a band of 2 distinct white and red lines, between this band and the interior is a large white, lunate macula are the same in lower wings; across the exterior and margin is a band of 4 distinct lines, ashy gray, black, cream, and ashy gray; lower wings the same. The Larvæ is greenish, without hair except a few on 2 protuberances, and feeds mostly on elder. The ova is cream color clouded with reddish gum, with which they are fastened to the leaf or bark. The Pupa or Chrysalis is dark brown enclosed in a cocoon of strong, soft and lustrous silk. It is a native of the North American states, and is found in no other country. I have eleven of the cocoons in my possession, four of which I found on Manhattan Island, near Harlem, N. Y. and seven in the forest of Bergen county, N. J.

I intend this summer to manufacture some sewing silk from the native American Cocoons, and hereby promise to send Mr. Jenks one skein of it provided he will "contrive" some better name than "contrivance" for the plan of lath described in this communication. Yours, &c.

C. F. DURANT.

Jersey city, July 21, 1837.

Packing Butter.—During the summer months butter is usually lower in price than at other seasons of the year, and hence its preservation sweet and good when packed, may be an object in an economical point of view, at this pinching time of cash. Take a stone pot or jar that will hold thirty or forty pounds, clean it thoroughly, and wash it in strong cold brine. Take of new sweet butter, well made, and free from buttermilk (if enough to fill the pot at once so much the better) work it well and put a layer of it a few inches in thickness in the jar, beat it down solid with a wooden beater, turning off the milk that will escape occasionally, then repeat the process until the pot is filled within an inch and a half of the top, with butter thoroughly pounded down. On the top of this mass pour one inch of clear pure brine, made by dissolving salt in warm water until saturated, and then cooled. Over this lay a clean cloth, and if this is secured by a smooth stone, it will be better than a board. Keep the jar at a low temperature, and the butter will keep good for an indefinite length of time, only examining it occasionally to see that it is covered with the brine, and renewing it if necessary. Last

summer we put down some jars in this way and they kept perfectly fine for winter use; and Judge Buel has preserved butter in this way for twenty months in good condition. The only requisites appear to be pure sweet butter to pack, solidity in the mass by beating, total exclusion of the air by brine, and the lowest temperature possible.—*Genesee Farmer.*

Wool.—This great staple of Vermont has just been taken from the useful animal which bears it and is ready for market. The aggregate of the crop in the whole State, this year, probably exceeds 3,000,000 pounds. At last year's prices, say 60 cents, it would amount to near 2,000,000 dollars. But it is said there are no buyers, no market, and hence no price for the article. This is truly a sad state of things. But will it long remain so? is the question. For one, we think not. While summer, and *Winter*, in particular, last, people must have clothes; and, we think, if it is difficult for the manufacturers to buy wool at home, it will be more difficult to buy the article abroad; and the wool they must have or do worse. Many of the farmers are enabled to give a long credit for a part, at least, where they have large lots; and we think they would be willing to sell it at a reasonable rate.—*Rutland Herald.*

Town and Country.—A lady correspondent writes as follows:—"I wish you could be here; the air is laden with the fragrance of the clover; it has grown beautifully, and the whole ground is one continued blossom. Oh! that this world should be so beautiful and yet so wretched! The city is the dark side of the picture at present; look at the trees and the cloverfields, and you will say, how lovely! look at the city, and you will say, how wretched! The external hue is all beauty and loveliness; the internal there is dark, anxious and appalling. Of course the interest is felt and participated in here, too; but we cover it all by a drop-scene of variegated green, laden with perfume, and crowded by the happiest and most delightful musicians; and while revelling in a sort of natural enchantment, for awhile, we forget the evils behind the curtain."

Horticulture.—A Mr. Ely, residing near the ancient town of Bury St. Edmunds, (Eng.) recently bet five pounds that he could produce, by a process of culture peculiar to himself, a cucumber 20 inches in length, in the space of eight days from the time of setting the blossom. The wager was accepted, and within five hours of the period named, as choice and as handsome a fruit as was ever seen, and in length 21 inches, was cut from the vine. It ought to be mentioned that no lining was used, and that the frame in which it was grown was of the most common description, and not the better for its wear.

French Flour.—Among the other curious things that of late have arrived among us is the article of French Flour, in barrels, as ground and put up in France, lately imported at New York. A friend has shown us a lot he has for sale, which appears to be equal in quality to the best Western flour, and in perfect good condition.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	1 50
CATTLE, on the hoof,	100lbs	7 50	9 00
CORN, yellow	bushel	1 00	1 03
White,	"	95	100
COTTON, Virginia,	pound		
North Carolina,	"		
Upland,	"	10	12½
Louisiana 20a21-Alabama	"		
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 75	11 75
Do. do. baker's,	"		
SuperHow. st. in good de'd	"	8 75	9 00
" wagon price,	"		
City Mills, super,	"	7 87	8 25
" extra,	"	8 50	9 00
Susquehanna,	"	9 00	
Rye,	"	6 00	
Kiln-dried Meal, in hhds.	hhd.		
do. in bbls.	bbl.		
GRASS SEEDS, red Clover,	bushel.	7 50	
Timothy (herds of the north)	"	2 50	
Orchard,	"		3 00
Tall meadow Oat,	"		2 75
Herds, or red top,	"	1 25	
HAY, in bulk,	ton.	12 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 50	6 75
Slaughtered,	"		
HOPS—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	60	
PEAS, red eye,	bushel.		
Black eye,	"	87	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo, ton.	ton.	4 00	
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	80	85
Susquehanna,	"		none
TOBACCO, crop, common,	100lbs	2 50	3 00
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 80	1 85
Red, best	"	1 60	1 75
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls,	gallon.		35
" in hhds,	"		33
" wagon price,	"		30
WAGON FREIGHTS, to Pittsburgh, 100 lbs	100 lbs	1 25	
To Wheeling, ..	"	1 25	
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do,	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.		13½
Shoulders, do.....	"		11
Middlings, do.....	"	do	do
Assorted, country,	"	8½	9
BUTTER, printed, in lbs. & half lbs.	"	25	
Roll,	"	16	20
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	5 00	7 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 12	2 18
CHOP RYE,	"	1 50	1 62½
EGGS,	dozen.	18	
Fish, Shad, No. 1, Susquehanna, barrel.	barrel.	7 50	
No. 2,	"	7 00	
Herrings, salted, No. 1,	"	2 87	
Mackerel, No. 1, -----No. 2	"	8 00	9 00
No. 3,	"		4 50
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	8½	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	
Branch at Baltimore,	do	
Other Branches,	do	
MARYLAND.		
Banks in Baltimore,	par	
Hagerstown,	½a	
Frederick,	do	
Westminster,	do	
Farmers' Bank of Mary'd, do	do	
Do. payable at Easton, ... 1		
Salisbury, 2 per ct. dis.		
Cumberland,	3	
Millington,	do	
DISTRICT.		
Washington, }		
Georgetown, } Banks, ½p.c.		
Alexandria, }		
PENNSYLVANIA.		
Philadelphia,	½a	
Chambersburg,	1	
Gettysburg,	do	
Pittsburg,	3½	
York,	1	
Other Pennsylvania Bks. 4		
Delaware [under \$5] ... 6		
Do. [over 5]	2	
Michigan Banks,	10	
Canadian do,	10	
VIRGINIA.		
Farmers Bank of Virgin. 2		
Bank of Virginia, do		
Branch at Fredericksburg do		
Petersburg,	do	
Norfolk,	do	
Winchester,	do	
Lynchburg,	2½	
Danville,	do	
Bank of the Valley, ... 2		
Branch at Romney, ... 2½		
Do. Charlestown, ... 2		
Do. Leesburg,	2	
Wheeling Banks, 4		
Ohio Banks, generally 6a7		
New Jersey Banks gen. 5		
New York City, 1		
New York State, 3a4		
Massachusetts, 3a3½		
Connecticut, 3a3½		
New Hampshire, 3a3½		
Maine,	3a3½	
Rhode Island, 3a3½		
North Carolina, 6		
South Carolina, 8a10		
Georgia,	do	
New Orleans,	15	

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Also, a good RAMAGE PRESS, now in operation; price \$60. Also, a STANDING PRESS, iron bound wooden frame, with a powerful screw; will be sold low.

Apply to SANDS & NEILSON, Office of "Farmer & Gardener," jy 25 4t Corner of Charles & Market sts. Baltimore.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultiva-	Threshing Machines, with
tors	or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime
Weldron Grain and Grass	Spreaders
Scythes	A great variety of Ploughs
Farwell's Patent Double	of all sizes, with wrought
Back Grass Scythes and	and cast iron Shares
Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of
Manure Forks, Shovels, &c.	Plough Castings, con-
English Corn Hoes	stantly on hand for sale
Superior American made	by the piece or ton. All
Castee Hoes, with han-	kinds of Machine Castings
dles	made to order; repairs on
Wheat FANS, of various	Ploughs and Machinery
sizes	done at short notice
Mattocks, Picks and Grub-	Liberal discount made to
bing Hoes	those who purchase to
Corn Shellers	sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

jy 4

J. S. EASTMAN.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

CONTENTS OF THIS NUMBER.

Work for August; advice to Mulberry growers; large yield of Potatoes; Bone Manure; the black Weevil; communication from Alabama on the mulberry culture; value of Night Soil; Winter Wheat; the Chintz bug in corn; topless Potatoes; Bees and Honey; easy method of hiving Bees; stimulating manures; Corn-suckers; the Weevil; Silk Culture; sowing ashes to prevent mildew, insects, &c.; profitable dairy; a suggestion to sow winter wheat in the spring; honorable character of agriculture; successful experiment of spring wheat; native American Silkworm; packing Butter; wool crop of Vermont; town and country; quick work in horticulture; French Flour; advertisements, prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 15.

BALTIMORE, MD. AUGUST 8, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, AUGUST 8, 1837.

We copy with pleasure from the Cambridge, (Md.) Chronicle of the 29th ultimo., the following notice, and we are happy to find that the *beet culture* has found an advocate in Dr. Muse, of the Eastern Shore of our State. From him it will receive all that intelligence, enterprise and means can impart to it.

"We saw yesterday a fine specimen of a crop of Sugar Beet (species 'White Silesian') from the farm of Dr. Muse near this place. The Beet which was exhibited to us, was 16 inches in circumference, 13 long, and weighed 5 lbs. 3 oz.—Dr. Muse exhibited on the 4th of July, a specimen of his Beet, which measured 11 inches in circumference. The crop has much time yet to grow—and at least 25 per cent. increase, it is supposed, may be fairly expected, when fully matured."

If we experienced pleasure in copying the above, we must be permitted to say, that in recording the following notice from the *Advocate*, published at Denton, Caroline County, Md., we feel no other sentiment than that of mortification, at the total indifference to their interests which seems to pervade the community to which the article alludes:

"The agricultural meeting advertised to be held in this town on Tuesday last, was a total failure;—but one solitary individual attended! and he, not being able to organize, thought proper to adjourn. We merely mention this fact in order to show the enlightened views of our farmers, and the enterprising spirit manifested in the prosecution of every thing pertaining to their interests."

Our advices from the cotton growing states of the South and Southwest, induce us to believe, that the coming crops of cotton will enable the planters in that region, to repair their losses under the dreadful deprivation of the price of their great staple, caused by the deranged condition of the monetary affairs of the world. There is one fact connected with the interests of this enterprising portion of our agricultural community, that

we were highly gratified at learning. They are now engaged in raising their own corn and hogs, so that no portion of their cotton crops will be abstracted in the procurement of these supplies.

LIME—ITS USES—THE VALUE OF THE LIME SPREADER.

Extract from a letter from a Virginia subscriber, dated,

"MOUNTCALM, Loudoun co., Va. }
"July 18, 1837. }

"Dear Sir—Within a few days I have discovered a ledge of limestone on my land, which, from a slight examination, promises to be very abundant, and of course profitable; for, in this region of country, the eastern base of the 'Blue Ridge,' it is very scarce, and of a price so high as to forbid its use as a manure. It is my purpose to apply it to the soil, as soon as I can make arrangements for converting it into lime, and procure sufficient information to enable me to do it with advantage—to procure which, the needful information, is the object of troubling you with this communication. To enter without experience, or intelligence upon the plan, would, perhaps, be unwise."

"Could some one of your numerous and intelligent correspondents, (or yourself, if not too much encumbered with other matters,) furnish an article upon this interesting subject, for the Farmer and Gardener, he would confer upon the public an important benefit. I should like to see a brief account of its adaptation to various soils, the proper time and mode of applying, the quantity per acre; whether quick or slaked; on grass or ploughed land;—in short, all material and pertinent facts. In appropriate connexion with this subject, the best, or most economical method of burning lime on a large scale, might be added.—I perceive Mr. Eastman advertising in the Farmer and Gardener, 'the Lime Spreader,' unaccompanied by any notice or detail of its powers or peculiar merits."

We have inserted above an extract from a letter from a respected subscriber in Loudoun County, Virginia, and shall with great cheerfulness comply with his request, and endeavor, in our plain way, to give him answers to the questions he has propounded to us. We are sensible that there are hundreds of others, nay, thousands, who could do the subject more justice than ourself; and for the interest of the agricultural community we do hope that some of our readers, who are competent to the discussion of the subject, will favor the public with their views, and the results of their experience in the use of lime, for agricultural purposes. Lime, as a meliorator of the soil was used in

the earlier days of the Roman Empire; its advantages were seen and acknowledged; its wonder-working powers were visible on ten thousand fields centuries by-gone; but strange as it may seem—unnatural as is the fact—it is nevertheless true, that there are innumerable instances of highly intelligent farmers who still doubt its efficacy. That those who from the prejudice of misdirected or imperfect education, are incompetent to judge correctly, should still be sceptical, excites no surprise in our mind; for ignorance abounds in every business of life, and we have seen men who have been raised to the avocations of the soil from their "swaddling cloths," decrying the virtues of lime as stoutly as though they really knew something about it. We know an individual of this description, who is really so consummate a mass of animal matter, that if by any chance accident, or freak of the moon, an *idea* were to stray into the cells of his brain, an immediate eruption would be the consequence—and yet this man, will attempt to be witty at the expense of those who are so "silly as to waste their money in buying lime" for agricultural purposes. But to return to the inquiries of our esteemed correspondent:

1st. "Its adaptation to various soils?"

It is adapted to the improvement of any soil wherein too much water does not abound. For instance, to apply it to a wet marshy spot, would be a waste of means, as the lime in such a position, could not perform its office, as it would become a mass of disintegrating mortar.

It, however, improves *clays*, by separating the adhesive particles of which they are composed, thus rendering the entire body more friable and easier of being penetrated by the roots of plants and vegetables. If there be, as there frequently is, a superabundance of acid in the soil to which it may be applied, it neutralizes that acid, and renders the earth more healthful to vegetation. The weed known as the sheep sorrel, whose presence is the certain indication of too much acid in the soil, will disappear upon the application of lime, and give place to a more wholesome growth of plants. Upon *sandy soils*, lime exerts a most happy effect, by imparting to them that principle of tenacity, so essential to the power of retaining manures. In a word it may be said that lime suits all soils, except those that are continually wet.

2d. "The proper time and mode of applying?"

These must be determined by circumstances.—If the soil be what is called new ground, we would say, the lime should be spread on the surface, ploughed in during the fall, and on the opening of the spring the field should be ploughed again, in order that the lime may be brought to the surface.

If it be a *clover-ley*, or a *grass-sward*, intended for wheat we would say, spread the lime and plough it in, a few days before seeding.

If a *sod* intended for corn, we would say—spread the lime and plough it in during the fall, and replough in the spring just before corn-planting time.

Lime is strikingly beneficial to all lands, except those we have noted; but the greatest degree of benefit is perceivable where it is brought to act upon large bodies of woody and vegetable matters. The received opinion now is, that it is not of itself a manure, but the cause of converting other substances into food for plants. Whether this opinion be correct it is not our purpose to inquire, as we deem it would be an unprofitable expenditure of time. We all know, however, that *lime* has been found in almost every vegetable body that has been submitted to analyzation, with a view of ascertaining the fact; and Chemists have proved, that *lime* is soluble in 600 times its weight of water. If we take these two facts in connexion, they would seem to argue that besides performing the simple office of stimulating dead vegetable matter into a state of profitable digestion—into a pabulum capable of being eaten by living plants, that it is itself a *condiment* upon which these plants themselves delight to feed.

3d. "The quantity per acre, whether quick or slaked lime, on grass or ploughed lands?"

With regard to the quantity per acre a great diversity of opinion exists, and *practice* is as variation as *theory* upon this head.

In *England*, where liming has been carried to a much greater extent than in almost any other country, there appears to be no settled rule of apportionment, each landholder consulting his own notions of propriety as to the quantity to be applied, and these varying from 150 to 600 bushels per acre. It is affirmed by European writers of approved merit, that strong loams and clays require more lime than light sands. Our own opinion is, that it is not so much the *texture* of the land, as the quantity of vegetable and fibrous matter it may contain.

In *France* where the use of lime is justly popular, they are more sparing in their doses, and one

of the most intelligent Agricultural Chemists who have ever written upon the subject, M. Puvion, maintains with great power of reasoning, that as lime is a mere stimulant, only intended to digest other matters into nutritive substances, that *small doses* are the best: he thinks that 25 bushels is enough to be applied at any one time: that more good, with the same means, can be effected by periodical applications of small quantities of lime, than by putting on large quantities at a time. The whole scope of this eminent gentleman's reasoning go to shew, 1. That lime is a mere stimulant, a promoter of digestion; and 2. That after it has converted the matter in the soil into *food*, that it remains dormant until other crude substances are brought into contact with it, and 3. that therefore all heavy applications of lime are unnecessary and wasteful.

In this country there is also a difference of opinion as to the proper quantity. Some use from 150 to 300 bushels the acre, while others think that from 60 to 100 is enough. For ourself we certainly would never exceed 100 bushels to the acre, and would not apply that except the soil was new and full of vegetable matter—a *clover-ley*, or a heavy grass sward. In most cases, and especially of light soils, we think 50 bushels to the acre quite enough at a time.

We do not know that we should apply it to ploughed land whereon there was no vegetable coating, unless we supplied that deficiency by a full dressing of long manures.

We are not certain that there is much difference in the good ultimately resulting, whether the lime applied be *slaked* or *quick-lime*, except so far as *quantity* may be concerned—and it should be borne in mind, that the quantities named in this paper have relation to unslaked lime. If *quick-lime* be applied, before it can be of service, it must be slaked, hence the justness of our position.

One important thing to be considered is, that as *lime*, from its great specific gravity, has a tendency to sink, it is important to keep it as near the surface as possible; it cannot, therefore, be ploughed in too shallow.

4. "The best or most economical method of burning lime on a large scale?"

We are not sufficiently versed in the science of building kilns to answer this question satisfactorily to our own mind, but will take the earliest opportunity of seeking advice in a quarter where we are sensible we shall receive it. In *Wales*, they do not trouble themselves about kilns at the present time; preferring for agricultural pur-

poses to burn their lime on a plan similar to that pursued by us in making charcoal.

5. "All material and pertinent facts."

Upon this head we must necessarily be brief, for the facts illustrative of the improving effects of lime, are so numerous as to forbid any thing like a detail in a journal of the character of ours. In *England*, where it has been freely used, its good effects are universally admitted by all intelligent agriculturists; nor are the evidences of its high estimation less numerous in other parts of Europe. In our own country, wherever lime has been used, it has made converts to the belief in its efficacy—nay, to that of the indispensable necessity of its application. We know many estates, on which by its use, the product of wheat has been raised from about 7 to 20 bushels to the acre: and that of other grain in an equal ratio of increase. Nor have its virtues been less manifest in improving the yield of meadows of all kinds. With these few remarks, we will close this part of our duty, by simply stating, that, in our opinion, no worn-out lands can be brought up to a state of permanent improvement without the use of lime or calcareous earth in some form or other—that by their use, such lands can be pushed in most instances greatly beyond their original fertility. But before we close this part of our remarks, we would enforce this truth upon our readers—that *wherever lime is applied to lands, those lands should every third year have a clover-ley turned in*, except where there may be meadows of more lasting duration.

Of the power and peculiar merits of the *Lime Spreader*, invented by Francis H. Smith, Esq. and manufactured by Mr. Eastman, we would observe, that it is constructed so as to spread any given number of bushels of lime on an acre with uniformity and certainty—that it takes away from the labor of spreading, all that unpleasantness which rendered it so unpopular with hands engaged in it, and is on these accounts a valuable acquisition to any farmer or planter, who may desire to go extensively into the use of lime. The cart is so arranged as that the machinery can be taken out, when it forms a most handy vehicle for all farm purposes.

In conclusion, we congratulate our correspondent upon the discovery on his fine estate of a "ledge of limestone," and we trust that it may prove as abundant as it now promises to be, and here let us assure him, that should his expectations be realized, he will have in that "*ledge of limestone*," a mine of wealth, and his neighbours, the sure and certain source of permanent improvement for their respective estates.

In the same letter whence we have taken this extract, our correspondent enclosed us his own subscription and that of a new subscriber he obtained for us.—For these demonstrations of kindness towards us, we pray him to accept our unfeigned thanks.

COMMUNICATED FOR THE FARMER & GARDENER.

MANURING BY A PROCESS OF COW-PENNING.

Mr. Editor—Some years past I became satisfied, that it was the sound policy of the farmer to *improve* his land, rather than *break up and move* to heavy forests—destroying the ease of himself, perhaps an amiable wife and mother, and an interesting offspring, (if he has discharged his duty to them) and placing them all under the *moral misfortune*, (incalculably unfortunate to youth,) of being out of a state of society—and from an inevitable necessity, allowing that all has been done that ought to have been done by a virtuous parent, making a “retrograde march” in refinement, in improvement, if not in virtue. But I was also early satisfied, that well directed efforts would prove to the satisfaction of a large majority, that the first was his true pecuniary interest. I determined consequently, to direct all the energies of a humble portion of intellect, to discover by the best conducted experiments I could make, the most judicious and profitable mode of improving my land, by *manuring*, as also by other modes of effecting the improvement of soil. After a great many trials, I have ultimately settled down on one that I am disposed to view as happily calculated to effect my object—and also, that it is in some degree an improved one. I shall give it to your readers with the hopes of benefitting some enterprising planter and cultivator of the soil, who has determined that he was not decreed to follow the beaten track: and secondly, that it may elicit the practice and experience of some others who have done more in that way than I have done.

Like thousands of others in the western portions of our states, I have made several “moves”—and, indeed, I may fairly lay claim to the *title* of a “moving character.” The first through pure folly, the second through avaricious motives, the third, fourth, and fifth, appeared providential, and forced by causes I could neither foresee nor avoid—but I have now fully discovered, on a retrospect, that I had better, before I made the first, “have staid where I was”—and also, that not one of the situations refused, if I had known it, the ample means for effecting my favorite object, and which was to have “good land,” that my labor might be productive.

But here, that I may not be misunderstood, owing to my candor, I must beg leave to make a small digression. I never for a moment in my life, was carried away with the belief, that Girard’s happiness bore any proportion to his fortune, or that it is the case with any of the *million men* of our country—No, no, Mr. Roberts, I had the good fortune to have my eyes always open, in my walk through life as regarded men, and an innate dislike to be carried away by *appearances*, only secured close attention to things going on before me, and in the examination of *facts*, I effectually discovered, that a certain portion of *fortune*, becomes almost inevitably in its effects, an effectual misfortune, to men and their families,—that it appears to be followed almost universally in its effects, by a *mental degeneracy*, and an *incapacity* for public and private usefulness. I took ultimately, while reflecting on the extent of this dreary fact, a peep into Congress Hall, and the Departments of State, and began to look about for

the sons of *million men* there,—but, alas! they were not there—No, no, Mr. Roberts, I found the conspicuous, the great, the useful men of the country—those whom the nation delighteth to honor—those whose greatness, usefulness, and public virtues have become the property of the nation, arose from a different start! I settled down at once in my pecuniary creed on “Burns, Glorious Independence”—for, to me a thousand strong reasons. When I looked at my sons, I thought of the “Tennessee Farmer,” and said it is not *necessary* to leave an *immense estate*—nor is it to make them “lawyers” or “doctors.” No! no! I’ll put them in the ranks with a “country’s pride”—it is the “best chance” for *true greatness*, and in my country, thank God, the safest road to *fame*. If, under providence, they should be found to possess *excellent hearts* and *uncommon good heads*, they will find their level—that which they deserve, and best for them—allow them but *common claims*, there is a sphere of virtuous action, furnishing a fair reward to honest merit. I was early cured of an *inordinate* desire for extraordinary wealth.—My ambition (for I have “plenty such as it is,”) was to feel that I was doing in my hour, some good for my fellow-men, and not averse to hearing it acknowledged—for after dealing fairly with myself, I find I am a little spiced of vanity—but a good old, very sensible neighbor of mine, tells me much to my comfort, “it is a laudable kind of vanity.”

To return to my subject. The last tract I got possession of, was sufficiently eligible—the only *great* misfortune attending it was, that it had been in the possession of a *great fool* for some years who had cleared, or rather, as they say here, “maumacked” and murdered a large body of the land, and the most choice part—so perfect a fool, that at the age of *forty five*, could not be made to comprehend the theory of a “rotation of crops,” a course so absolutely necessary, either to make soil productive, or preserve it in that state. He stared at me when I mentioned it, and after a few minutes, broke out into a loud laugh, pointing to a spot of rich ground, on which there was growing some twenty vegetable productions, as *proof*, that my theory was not the “process of nature,” as he called it. Finding that *nature* in her *process* had made him a *fool*, I quit him, and to save precious *time*, went to making manure with ‘might and main.’ But as this letter is getting long, and your columns short, and not wanting to monopolize your valuable pages, with your permission, I will go on in another number.

A FRIEND.

[For the Farmer and Gardener.]

HINTS AND NOTES.

BY A DESULTORY READER.

Wheat is sold by the *weight*—60 pounds the standard, and the farmer gets paid for a greater or less number, according to the *weight*. The same rule might be very advantageously applied to OATS. No grain differs more in quality. Let this matter be attended to by the competent authorities. Some oats, though nearly equal in appearance, is not worth as much by one half, or nearly so, as others. Alleghany oats, for instance, are probably ten pounds heavier in the bushel than Eastern Shore oats. In New-York they are

bringing their oats up to 40 pounds a bushel, which is probably the standard.

[For the Farmer and Gardener.]

ALDERNEY AND OTHER CATTLE.

Mr. Editor—Finding it impossible to divest myself of my partiality for agriculture and rural economy, I sometimes indulge in reading on these topics; and occasionally meet with things, which tho’ not new, yet may not be known to *young* farmers, and will, on account of their value, bear repetition even to the older ones.

On the subject of *cattle*, and there are few subjects more interesting, I have long been of opinion that a great *loss to the country* has been sustained in the neglect of the *Alderney breed*. The history of their importation, by Messrs. Creighton and Woodville, may be found in the pages of Skinner’s old American Farmer. If that breed of cattle had been preserved, pure until this time, it would have established itself in public estimation, as the best breed for a *cream and butter* dairy, that we have ever had in America. Mind, I say for *cream and butter*.

Any given quantity of the milk of the Alderney, will yield more cream, and that cream more butter, than that of any other race, and if Mr. Lurman or some other public spirited merchant, entertaining a *penchant* for husbandry, would import the breed once more, the writer of this will undertake that he shall be noted in the agricultural annals of the day, as a public benefactor, and that the breed shall be preserved.

Of the qualities of the milk, its yellowness of color as it is yielded from the cow, shews its great richness, and it is known to the writer of this, that the milk of *one* cow, in a pen of eight, has imparted a rich yellow color to the butter of her seven common country companions. That cow, a small black one, was sold to Mr. James Cox, treasurer of the Maryland Agricultural Society, (and a most vigilant close fistet Treasurer he was) and it may be, that some of her mongrel descendants are now browsing, or “ruminating lie,” on the verdant meadows of “cloud cap.”

From all my observation and reading, which are of some extent, I should say—

For the shambles, the improved Short Horns.

For the yoke, the Devons.

For *quantity* of blue milk, the Holderness; but,

For cream and butter, give me the ewe-necked, deer-headed, ragged-hipped *Alderney*.

In a volume before me, I find the following “EXPERIMENTS MADE AT THE EARL OF CHES-TERFIELD’S DAIRY.”

Holderness	from 5 qts. milk gave 7 oz. but.
Long Horn or Hereford	5 “ “ 6 $\frac{3}{4}$ “
Devonshire	5 “ “ 8 $\frac{1}{2}$ “
Alderney	5 “ “ 9 $\frac{1}{2}$ “
Devon and Holderness cross,	5 “ “ 8 $\frac{1}{4}$ “
Devon and Long Horn cross,	5 “ “ 8 “
Devon and Alderney cross,	5 “ “ 9 “

The breeds and crosses with which the experiment was made consumed of food—the Holderness most, and so on, as follows—second, Devon and Holderness cross; third, Long Horn;—

fourth, Devon and Long Horn Cross; fifth, Devonshire; sixth, Devon and Alderney; seventh and least eater, Alderney!

A heifer calf, out of an Alderney owned by our respected fellow-citizen, H. Thompson, was sold to Commodore Chauncey, and taken to New-York. Is that animal now alive?

J. S. S.

[For the Farmer and Gardener.]

E. P. Roberts—Respected Friend—Apprehending that any experiments or information relative to raising the *Morus Multicaulis* or new Chinese Mulberry tree would be acceptable at this time of general inquiry about it and raising of silk, having found by six years experience, that the above mulberry does not stand our winters well, if raised on rich land, especially in low frosty situations; in such places, their growth are apt to be young and tender, and consequently, easily affected by frost, when left exposed to it—I therefore, in the spring of 1836, planted some of said trees in a high, gravelly, clay soil, of poor quality. On this during that season, the trees grew slowly, but even the latter growth was ripe and fine. I left them out last winter for trial, and had the satisfaction to find last spring, those had passed the winter without injury by frost, even to the ends of the twigs, and are now growing finely.

By the success of this experiment, I was encouraged to plant last spring, one and a half acres, and am preparing ground for planting two acres more next spring, with the said Mulberry, as a permanent Mulberry Orchard, for feeding the silk worms.

I have also about 20,000 mulberry trees now growing, and from present appearance, I think they will have fine roots by autumn, and be 3 to 6 feet high. With these I propose filling the orders of my customers, with care, and at moderate prices.

Respectfully,

ROBERT SINCLAIR,
Clairmont Nursery, near Baltimore.

[From the Southern Agriculturist.]

ON MANURES.

Barnwell, June, 1837.

Mr. Editor—In this District, where the soil is not very rich, the planter *must* turn his attention to making manure, or abandon the soil. Already has the climate been changed, by the inconsiderate custom of clearing lands every year; for it has become sicklier, colder, and therefore less congenial to the cotton culture. The soil is light and easily worked. The materials for making manure are in abundance. And why should we not avail ourselves of these advantages? Not one planter or farmer in ten, thinks of manuring at all. While one will be deriving fine crops from manuring, his next-door neighbor will not deign to inquire into the cause. Even those who turn their attention to manure, do not understand the plainest chemical elements by which they are to be regulated in its production. Because it may be beneficial to manure with cotton-seed on top, a planter will use cow-pen and stable manure in the same way,—as if the sun would not extract much of the strength of the manure, before it could be covered with the plough. Cotton

seed can be used on top; because, before it ferments, and before the sun can extract its alimentary properties, it is covered in the working of corn. I only mention this to show, that, our planters, by not *thinking* for themselves, are frequently inconsistent. There is my neighbour, Squire Snooks, who, the moment his manure arrives in the field, covers it with dirt, and yet he manures his corn with it, on top.

The best planters up here adopt this plan of making manure:

1. The stables are filled with oak-leaves, rotten wood, (oak best,) pine-trash, heaped in the woods for at least six months before used, all kinds of trash, gum-pond mud, and sometimes clay, well broken up. This is taken out of the stables every two months, if possible, during a rain, heaped and covered with clay or sand; if not during a rain, pour upon the heap, before covering it, a sufficient quantity of water to assist fermentation. Even while the mass is in the stable, a little water, occasionally sprinkled, with the use of the grubbing-hoe at least once a week, will have a good effect. By grubbing with the hoe, the animal is effectually combined with the vegetable manure, and lumps of clay, or rotten wood, are pulverized.

2. The poultry houses and yards are cleaned once a month, and the yield therefrom, thrown into the stable.

3. All the Pride of India berries are raked, and thrown into the stable.

4. There is a pen, six feet square, and six feet deep, below the surface of the earth, filled with leaves, and covered, into which the cook and washer throw their slops and suds. This is emptied at the proper time, heaped, and covered with trash, &c.

5. Hog-pens are made, six feet square, and six feet below the surface of the earth, filled with leaves, and protected from the rain. The floor is made of rails, through the intervals of which the animal matter of the hogs is dropped. On the floor is a covering of pine-trash, for beds, which the sharp feet of the hogs will, in a short time, cut into fine pieces. The hogs are either penned here the whole year, or sleep in them every night, or, at all events, are put up at least one month to fatten for bacon. Manure thus made is equal to cotton-seed.

6. Each negro is allowed to keep one or two hogs, on condition, that they are penned, as above stated. Hogs fatten best on wooden floors; and though raw cotton-seed will kill them, they fatten on it when boiled with the offals of the garden and fields. They do not like cold or rain, and, in the end, it would be decidedly cheaper to pen them all the year, except when they are allowed to run the pea, potato, and slip fields. In the way I have described, they will make more manure than the cotton-seed they eat. Besides, there is nothing safer than to have our hogs always in sight.

7. Cattle pens. The manure made in these pens is always indifferent, unless they be covered. In this particular, our planters up here, labor under a great mistake. Their plan is this: Leaves and trash, thrown into a pen, are trampled on by cattle, exposed to the weather; and, by the time the mass is heaped for fermentation, the best part of its manuring qualities has evaporated. On the

other hand, when in stalls, the leaves are not only trampled, but they absorb the animal matter, and retain it until the manure is used. A cow, when stalled, will make four times the manure of a horse, in a year. Its dung is more susceptible of combination with vegetable matter; and, for the same reason, is rendered quickly inert, by the action of the sun. I have tried the difference between fresh and dried cow-dung, under corn. The former had no effect; while the latter forced the corn very much. Cow-pens should be covered, and the cattle turned in every night. However, after all, the most profitable plan is to stable-feed milch cows and oxen; in this district, where we are compelled to feed cattle, one half of the year, they should be fed with boiled cotton-seed. That cotton-seed, for corn, is superior to any manure we use, cannot be doubted; but, at the same time, when the improvement of cattle is considered, the increase of their milk and butter, their protection from thieves, and the undoubted fact, that they can be made to produce, in six months, four times more efficient manure than the cotton-seed they consume, I do not hesitate to contend, that, the better policy would be, to stable-feed them on boiled cotton-seed, for six months in the year, or during the winter season. Any cow can be taught to eat cotton-seed, by adding a little salt. A stall filled with leaves can be emptied every two months. The cow drops more than the horse, and it tramples more effectually—its hoofs being sharp and wide. Another consideration is this: with cow-pen manure thus made, land is enriched every time it is planted, and in this respect it is more valuable than cotton-seed. In short, to use cow-pen manure, raked from an uncovered pen, except for the undecomposed vegetable matter in it, is always a useless task. In nine cases out of ten, it will fire the corn, even in a moderately wet season. On the contrary, stable manure never will; nor does any well fermented manure ever fire the plant. A gentleman in my parts has advanced one step towards this improvement. When the mass, in his unroofed pen, has been sufficiently trampled, he covers it with clay, and on this places another layer of leaves and so on, alternating, until he has made the quantity of manure he requires. But even this gentleman is now engaged in building a stable for his cows. He says, by experiment, 3 bushels of cotton-seed per week, will fatten a cow, and 2½ bushels, with shucks, are enough. 50 bushels of seed, from two bales of short cotton, would enable him to stall-feed his cattle during the winter—the season when manure is made, and when cattle suffer most for range. So that, after deducting seed for planting from every fifty bushels of cotton-seed, he calculates to stall-feed one cow. He further says, that he will not be able to stall-feed all his cattle, but that all those not supplied, will be turned nightly into an open pen, filled with leaves, with which he will replenish the stalls whenever they may be emptied.

D.

Remarks, by the Editor.

It is with great pleasure that we give publicity to the foregoing communication. In that portion of country whence it comes, the least possible attention seems to have been paid to manuring.—Our correspondent, D., shows, very conclusively,

that this should not be the case. He clearly points out the various sources, from which the planter, in Barnwell, might procure himself manures of the very best kind; and we hope, that due attention will be paid to the subject, by them. In travelling thro' that district, about two years since, we met with a very superior field of corn, upon the road. Upon inquiring of the proprietor of the same, why it was so much better than all the rest, he observed, that he had manured it as a "brag-field," and, at the same time, observed to us, that he expected to make from that field, more than any other two on his plantation. This was a concession sufficient for us. We urged upon our friend to manure more the next year, and to plant less. He did so; and he is now at our elbow, and states the following as the result of our advice:

1. He attended the field with less expense of time and labor.

2. His corn, from having greater nourishment to sustain it, stood the reverses of the season better.

3. He made a larger crop, than when he planted twice as much corn.

Will our planters consider these facts? If they do, they will learn, for once in their lives, that there is such a thing as deriving some benefit from "Book-farming."

PROPAGATING THE PEACH.

1st. We gather the stones in the fall, which we bury about an inch under ground, (high and early ground is preferred, as the pits will sprout early in the spring,) spreading singly but as closely as you can, in order that the frost may have its full effect on them. The best time for putting them in the ground, is the last of October, but any time in October or November will do.

2nd. *Preparing the Ground for the Young Trees.*—Select a rich and middling dry piece of ground, which if very rich, will do without manuring, but if not, manuring is indispensable. Short and old manure is the best, and if some rich dirt be mixed therewith, I think all the better. The manure should be spread along in furrows, which should be made with a plough four feet apart. If any other manure be added after, I would recommend lime or ashes. The ground should be ploughed as well as harrowed well in the first place.

3rd. *Transplanting.*—This should be done as soon as the pits begin to sprout in the spring, by dropping them about 8 or 9 inches apart, and covered about an inch or more deep. Some nursery-men let the young sprouts grow 6 or 8 inches high before they transplant them, but the former way I think the best. The young trees should be planted and hoed as often as necessary in order to keep them free from weeds and grass, say three or four times each, the last just before budding, and not afterwards that season.

4th. *Budding.*—Select from the healthiest trees, the scions of the kind you wish to propagate, cut off the leaves and keep them in water, at least the butt ends, (those buds that have three leaves are the best.) They may be kept in this manner 3 or 4 days. Then take the scion in your hand, holding the butt end downwards, enter your knife about half an inch below the bud, and cut up-

wards about a quarter of an inch above the bud, taking the wood with it, and then cut across the twig deep enough for the bud to come off; then with the point of your knife take out the wood from the bud; then make a transverse cut in the stock to be budded, about three or four inches above the ground, (first trimming off the leaves and limbs about six inches above the ground;) from the middle of this cut make a slit about half an inch downwards, then with the point of your knife, open the bark on each side of the slit, by the transverse cut; enter the lower end of the bud therein, bearing it down with your thumb and finger till the topside of the bud comes just below the first transverse cut, then with bark or yarn, wind below and above the bud, in order to keep close to the wood. In twelve or fourteen days the bandage may be removed. The time of budding may be from the 20th of August to the 20th of September, perhaps later sometimes. In the following spring when the buds grow three or four inches long, the old stalks should be cut off about an inch above the bud. In the following fall or spring you may set out your orchard, putting the trees about twenty feet apart. The ground should be rich and dry, not springy. Manuring is indispensable, unless the ground be very rich.—Corn or potatoes may be planted among the trees, with benefit to them for three or four years.—*Hort. Register.*

BROKEN LIMBS OF ANIMALS.—An idea prevails with many persons, that broken limbs of horses and other quadrupeds, cannot be cured, owing to the difficulty of keeping the part sufficiently at rest during the time necessary for a broken bone to heal, or acquire sufficient strength to support its share of the animal's weight.

I heard of a case, some months since, which was successfully treated in the following manner, viz: Two pieces of scantling sufficiently strong to support the horse, were placed over and parallel with him in the stable; a piece of strong linen was then passed under him, and the two opposite ends confined to the scantling, so as to raise him from the ground or floor when required; a wooden box was provided with a bottom, two sides, and one end, composed of boards nailed together, and of sufficient length, width and depth to contain the leg from the knee to the foot, inclusive, besides a space of half an inch or more, on each side of the leg, to admit the necessary bandages, &c., with the bottom cut away sufficiently for the foot to enter and retain its natural relative position with the leg. The broken leg was confined in this box and treated in the usual manner that bones are when broken, and the box together with the leg from the knee to the foot confined in a horizontal position, or nearly so, by straps of leather or other suitable substances passing over the horse's back, and the two ends confined to the box; the horse was permitted to put his other three feet upon the floor, sufficiently to preserve a healthy action to the limbs, but not so as to permit him to displace the broken limb in the box and injure it. A cure was effected in the course of a few weeks. This was one of the anterior (or fore) legs. I see no difficulty in treating the hind leg, by partially suspending the animal in this manner, and varying the o-

ther parts according to the particular nature of the case.

Chester Co. (Pa.) June, 1837.

Far. Cab.

[From the British Farmers' Magazine.]

MANUFACTURE OF BEET-ROOT SUGAR.

The following full account of the various processes required for the manufacture of beet sugar, is taken from the last number of the British Farmers' Magazine. It was compiled and translated from the works of M. Dubrunfaut, and others, the latest and best authorities on this subject, by Samuel Taylor, Jr., for the work from which we copy it. Much interest is now felt in England, as in this country, in regard to this new branch of industry; and it is to be presumed that as this essay is the most recent, it embraces the newest and most valuable improvements. Directions on this subject, from several authors, have already been published in this and other agricultural journals in this country; but they generally are too concise, and those which are most full, and also proceeding from the highest authority of their time, (Chaptal's) were written before the latest improvements in this manufacture were known, and before its now ascertained great profits were even suspected to be obtainable. Therefore, it is supposed that the publication of this treatise is not superfluous; and it is hoped that in presenting it to our readers, we shall render some service to all who desire to commence this new business.—*Ed. Far. Reg.*

Introduction.

We will now proceed to notice the methods by which the greatest quantity, and the best quality, of sugar can be obtained from the beet root.

Sugar is a component part of this root, and that method of extracting it is to be preferred, which destroys the least portion of it in the course of the operation; for, in the present state of the art, it is undeniable that a certain quantity is destroyed.

Most of the beet sugar manufacturers refine their own sugar; a method not approved of by the author. The art of refining is very complex, and difficult to manage, and requires a long and intimate acquaintance with practical chemistry. The agricultural manufacturer, therefore, should confine his attention to the making of raw sugar only, and that of as good a quality as possible, to sell to the refiner. It is only when the making of brown sugar is finished that refining can begin. Consider then, the time which must elapse before a manufacturer can realize any profit upon his business: for it will be remembered that the process of refining lasts for six or seven months, or the whole of the season of vegetation. From the moment, therefore, that he sows his field, he is but then finished the manufacture of the preceding crop into brown sugar. Then comes the refining, which does not terminate till six months after; so that he has to wait fourteen or fifteen months before he can begin to sell his sugar, and probably eighteen months before the whole is sold. Add to this a credit of three or four months usually given to the buyers, and it will form a total of twenty-two months, or thereabouts, before he can expect to make his returns; whereas, if he sells the raw sugar, he will be able to begin to sell in seven or eight months after the seed time, and will have sold the whole in a year after the same seed time.

Those manufacturers would be more at their

ease as to capital, who would first use a part of their own crops in their manufactory, and would afterwards treat with the little farmers for what they could spare of their produce. Thus those who have not the means of forming an establishment of their own, will yet participate in some of the advantages of beet culture, the pulp of which they can re-purchase of the manufacturers.

I shall next proceed to describe the several operations connected with the manufacturing department, according to the order in which they follow each other.

CHAP. I.

Cleaning of Beet Roots

When the roots are to be washed, it is not necessary that so much pains should be taken in scraping and cleaning them by hand; but when it is not intended to wash them, the cleaning ought to be particularly attended to. This work is mostly performed by women and children. They are furnished with a sharp knife, two or three inches broad, and about ten inches long, with a suitable handle; and thus provided, they seat themselves near the heap of roots to be cleaned, and scrape each root separately, taking especial care not to leave any stones or dirt adhering to its surface. When a root is thought to be too large to enter the rasp properly, it should be cut in two or four pieces by the cleaner, according to its size. This should be done lengthways of the root.

The cleaning should take place in some spot convenient for the rasping mill and presses, and should be large enough to hold a quantity of roots sufficient to supply the manufactory for at least four or five days, and yet leave sufficient room for the cleaners to work in with comfort. After cleaning, the roots are thrown into a small open basket with ears, (like our turnip skeps.) They are then carried by the women to rasp, where they leave the full basket, and bring back empty ones. Two women well used to the work will clean, and carry to the rasp, three or three and a tons of roots, in twelve hours.

The cleaning, of course, diminishes, in some measure, the weight: perhaps about six or seven per cent. on the gross weight of the roots.

CHAP. II.

Washing the Roots,

Washing is not indispensable where proper pains have been taken by the cleaners; neither can it be done in every situation, the quantity of water required being so considerable. A stream of water contiguous to a sugar manufactory would be an important advantage. In general, the washing is attended with many difficulties, particularly those arising from frost, which not unfrequently puts a stop to it entirely; and some are disposed to think that it may be dispensed with altogether, by spending a little more time and money about the previous cleaning, and especially by using a large rough brush, after the scraping knife; but this latter has not yet been tried.

It is important that the vulgar prejudice in favor of washing, and even the idea that a large quantity of water is required in the manufactory of beet sugar, should be done away with. The manufacturers may rest assured that the want of water need not be an obstacle to an establishment, in any case; and that the quantity absolutely necessary to carry it on is very small indeed.

CHAP. III.

Rasping the Roots.

When M. Achard first attempted to make sugar from the beet root, he began by drying the roots by steam, then reducing them to paste by a mechanical process, and finally extracting the juice by pressure. It appears that the plan did not succeed, for he abandoned it. In fact, it is not that the sugar undergoes alteration from this drying or baking the roots, but that the pulp resulting from the drying process is so finely divided and slippery, as to render it extremely difficult to separate the juice from it. After many ineffectual attempts, M. Achard at last resorted to the method of rasping raw.

The texture of the beet root is so firm and compact, especially the better varieties, that more pressure will extract but a small proportion of its juices, which appear to be enclosed in a number of little cells, and it is necessary to break these by rasping in order to set the juices at liberty.

Other circumstances being equal, the best and most minutely divided roots will yield the greatest quantity of juice with the least pressure; and this constitutes the perfection of rasping.

1. Rasping Machines.

There are rasping mills of various kinds, but that invented by M. Molard has been considered one of the best in use. The principle is that of a cast-iron cylinder, set round with jagged, saw-like blades, by means of which the roots are cut, torn, and squeezed, till they part with as much of their juice as is possible. It will rasp about three and a half tons of beet in an hour. Price charged by M. Molard on delivery, 1000 francs (£41 13s 4d.) The cylinder alone is worth half this sum, therefore an extra cylinder will add so much more to the cost of the machine.

2. Operation of Rasping.

Two laborers are required to work M. Molard's rasp; or sometimes it is worked by one man and children.

Of all the operations connected with sugar making, the rasping demands the greatest expedition. As little as possible should be rasped beforehand, because the pulp speedily alters by exposure to the air. In fact, this alteration shows itself in a quarter of an hour, or, at most, half an hour after rasping. This operation, therefore, should only keep pace with that of the press, and not be much in advance of it.

The rasp should be washed at least once a day, and keep as free from dirt as possible, all particles of juice, or pulp, being but the elements of fermentation.

3. Power for Working a Rasp Mill.

The rasp ought not to be worked by hands, on account of the expense. Horses or oxen are far cheaper, and more powerful agents, but better than these are wind or water powers. The last decidedly the best, wherever a sufficient fall can be obtained. Of the two first mentioned, the author gives the preference to oxen, as working equally well, and requiring far less costly keep than horses, the pulp from the mill being generally all that is required to keep them—a description of food which horses will not touch.

M. Dubrunfaut is inclined to prefer a wind power, as being a more practical and general agent than either water or steam, the former being rarely to be met with in level agricultural districts,

and the latter very expensive, except in the immediate vicinity of coal. The society for the encouragement of national industry, aware of the importance of this power, offered a premium of 4000 francs (£166) for the best mill, which premium was awarded to M. de Lamolere. It is intended to be placed on some one of the farm buildings. Cost only 2,400 francs (£100); horses or oxen may be attached to it in the absence of wind; this provision is absolutely necessary in a beet-root sugar manufactory. A pair of stones may also be added, by means of which the family may be supplied with meal and flour. The only inconvenience attending a wind power is its inequality. This has sometimes been complained of by the rasps.

CHAP. IV.

§1. Extraction of the Sugar.

The extraction of sugar from the pulp is only to be performed by pressure, and the more powerful this is, the more the juice from a given quantity of pulp. However, it is impossible, do what one will, to get it all out; for, even after the greatest pressure, the pulp will still continue moist.

In this portion, as in many others of a like nature, the last particles of matter become so difficult to obtain, as to render it more economical to neglect them altogether. Thus in pressing the pulp of the beet root, the first juice runs out of itself from the bags, and it continues to flow abundantly under the slightest effects of the press, which the first always are; the quantity then decreases, perhaps in the inverse ratio of the square of the pressure. The remark may appear puerile, but it is highly important, as we shall soon see.

Suppose, for example, that with a known power, a certain quantity of juice is expressed in a given time from a mass of pulp. Suppose, in order to give the press the maximum of effect of which it is capable, that three men are employed for one hour, and that by this means 70 per cent. of syrup from the juice is obtained; it is probable enough, that by applying double the pressure after this, not more than 10 per cent. in addition will be obtained. It then becomes a question whether the quantity so obtained be worth the cost of producing it.

M. Caffer employs a hydraulic press of the power of ten tons, on a surface of about 74 square inches. This was charged in the presence of the author, and from the pulp about 70 per cent. of juice was obtained at the first operation. The power was then doubled, but not more than 8 per cent. of juice was the result, which, as before observed, hardly paid for the labor of producing it. However, on this point, much depends on the nature of the power used; for it is obvious that wind, water, steam, or even horses and oxen, are less expensive than hand labor, now so commonly resorted to.

It may be imagined that an increase of power in this department would fully answer the required end; but, as has been said before, it is to the rasp that we must look for obtaining the greatest results from the press.

All roots do not give out the same quantity of juice from similar rasping and pressing. Those which are richest in sugar give far less of it than those of a more watery formation. The opera-

tions of extraction being the same, it is only the different proportions of water which influence the quantity of juice afforded by the roots; and as the richness of the juice is ascertained in a manner sufficiently exact by the areometer, we may, by the help of this instrument, pretty nearly determine the quantity of roots which must be rasped to obtain a given body of juice.

Thus, with a good rasp and a powerful press, the following quantities of juice may be obtained proportionably to their areometrical densities:—

A 5°	80 per cent.
A 6°	75 "
A 7°	70 "
A 8°	66 "
A 9°	63 "
A 10°	60 "

Supposing that the experiment be tried on twenty-five hectolitres (88 English cubic feet) of juice, weighing 6° by the areometer, it would be necessary to rasp and press $3\frac{1}{4}$ tons of roots; at 7°, $3\frac{1}{2}$ tons; at 8°, $3\frac{3}{4}$ tons; and so on in proportion.

It is important that the operation of pressing should be done quickly; for as little delay as possible should take place between the rasping and pressing; as also between these and the defecation.

§1. Of Presses.

A variety of presses have been mentioned as applicable to the manufacture of beet-root sugar, as the screw, the lever, the wedge, the cylinder, and the hydraulic. Of these the last is decidedly the best, as extracting at one operation all the juice that the pulp is capable of affording.

2. The Accompaniments of a Press.

These accompaniments are the following:

- 1st. The bags which contain the pulp.
- 2nd. Osier hurdles.
- 3rd. A flat reservoir for preparing the bags in.
- 4th. A cistern for the juice, with pipes, pump, &c.

1. The Pulp Bags.

These bags should be made of strong materials: Russia canvass, for instance. The texture should not be too close, so as to injure from escaping, or they will be in danger of bursting; neither should they be too coarse, or the pulp will squeeze through the meshes. This last inconvenience is, however, of less importance, and of less frequent occurrence than the other.

The size of the bags ought to be regulated by the power of the press, observing always, that the surface pressed should never extend beyond the edges of the press itself.

As to the number of bags, that must of course, depend on the number of working presses, their size, and the change of pulp which each bag is made to hold. Thus suppose a press of which the height of the pressing space is three feet three inches, and that each bag shall be so filled, as, with the hurdle, to take up a thickness of $1\frac{1}{2}$ inch, it will then require twenty-five bags for each charge pressed. Add to these, five others for extra occasions, it will then form what is called a *set* (*un-jeu de sacs*.) If the press is kept at work day and night, three sets will be required; but, if only in the day, two sets will be sufficient. They ought to be changed every twelve hours. In some manufactories they use but one set, even if working day and night; but this is by no means desirable. Reckoning five months as the average length of the working season, one may fairly cal-

culate on wearing up a set of bags in each season. The bags ought to be carefully washed in hot water every twelve hours, in order to keep them as free from impurities as possible.

Hurdles.

The hurdles are made of osier, either peeled or unpeeled. They support the pile of bags under the press, and ought to be very strong and well put together, though not cumbersome. The dimensions will depend on those of the face of the press; at all events, they ought not to be larger. It is needless to describe the construction of these wicker hurdles further than to say that it resembles that of common hampers in its texture. The number of the hurdles must correspond with that of the bags: *plus* one. It will be advisable to have several sets of them, that they may be renewed every twelve hours. The same care is necessary in washing them frequently, as in the case of the bags; this is done in a flat cistern, of which mention will be made by and by, and which also serves to arrange the bags in. For this purpose the cistern is half filled with cold water, into which a certain quantity of unslaked lime is thrown. Each hurdle is then carefully passed through the liquor, afterwards well rubbed with a brush, and then washed in clean water.

Cistern in which the Bags are Prepared

The cistern should be large enough to contain the juice which is separated during the above operation; it ought to be a few inches wider than the hurdles, and a foot or so longer than double the length of the same. Thus supposing the hurdles are 2 feet wide, by $2\frac{1}{2}$ feet long, the cistern should be of the following dimensions:—

Breadth . . .	$2\frac{1}{2}$ feet.
Length	$6\frac{1}{2}$ "
Depth	1 "

There should be a stock in one corner of the cistern. This vessel ought to be of stout wood, lined with thin copper. Its situation in the building is between the rasp end the press; and one of its ends ought to be as near as possible to the cistern for receiving the pulp from the rasp. For the convenience of working it ought to be raised a few inches above the level of the floor. It should be surrounded by four stout moveable rails to hang the bags on, when they are arranged.

It is in this cistern that the hurdles are recommended to be washed with the cold lime water. It is needless to say, that after such washing, the dirty water should always be let off, and clean admitted. Cleanliness is indispensable in every stage.

Cistern for the Juice, Pipes, Pumps, &c.

This cistern serves to receive the juice as it comes from the press; and from thence it is transferred immediately to the clarifying copper. It should be provided with suitable pipes, leading from the press into it, and with a pump to throw up its contents into the clarifying copper. This cistern, therefore, should be placed lower than the press; and, like the former, should be of stout wood, lined with copper. The bottom should be slightly inclined, to enable the juice to draw to one side, at the lowest part of which is a hollow, in which the end of the pump is inserted that it may be entirely emptied.

The dimensions depend upon the mode of working. If only one defecation take place in

twelve hours, the cistern need not be above half the cubical size of the defecating copper. But if the plan be to work on small charges, so as to make two or three defecations in twelve hours, then the cistern ought to be of equal capacity with the copper. The form is of no importance whatever. The pipes should be of copper, and the whole carefully and frequently washed with lime water, and afterwards well rinsed.

3. Operation of the Press.

The cistern in which the bags are prepared, being placed as above described, one of its ends being a foot or more from the pulp cistern, the four rails are fixed, to support the hurdles. On the top of these rails, as a frame, a hurdle is laid, and on the hurdle, a bag charged with pulp; the bag and its contents are then spread evenly on the hurdle by two laborers, so as when finished to occupy a comparatively small space in point of thickness. This done, another hurdle is placed upon the bag, then a bag, and so on, in alternate layers of bags and hurdles, till the pile amounts to 10 or 12 bags; it is moved to the other end of the cistern, where it remains till a third laborer carries it to the press; another pile is then formed of equal height to the one removed, which in its turn, is moved on, and replaced by another. The average charge of the press is thirty bags. It is unnecessary to explain further the details of this operation; experience would very soon dictate the best system of working; we shall therefore, go on to say, that when done the press is discharged, and the three laborers proceed to empty the bags in a place appointed to receive the pressed pulp. The bags and hurdles are then separated, and got ready for another charge. Supposing that only one set of bags and hurdles are in use, it is easy to work off ten or twelve charges of a hydraulic press in twelve hours. Thus from charges amounting to 400 kilogrammes (883 lbs.) of pulp, one should press in a day 4 tons to $4\frac{3}{4}$ tons of roots, which, at seventy per cent of juice, would yield from 644 to 764 gallons of juice. This juice is received in the cistern before mentioned.

During the preparation of the bags, there collects in the cistern, in which this work is performed, a certain quantity of juice, which would be hurtful if suffered to remain there long. This therefore, ought to be removed at every charge, or, at most, every two charges of the press, which is easily done by the plug, or cock, at the bottom of the cistern, and which communicates by pipes with the juice cistern.

(To be Concluded.)

CONTENTS OF THIS NUMBER.

Culture of the Sugar Beet by Dr. Mose; failure of an attempt to form an agricultural society in Caroline county, Md.; encouraging prospects of the Cotton crops; information asked relative to the use of Lime, &c. with a reply by the Editor; Manuring by a process of cow-penning; hints and notes on the weight of wheat and oats; Alderney and other cattle; on raising morus multicaulis trees; on Manures in the south; propagating the peach; to cure broken limbs of animals; on the manufacture of beet root sugar; advertisements, prices current.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected from A. & A.

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	1 50
CATTLE, on the hoof,	100lbs	6 50	8 00
CORN, yellow	bushel.	1 04	1 06
White,	"	—	102
COTTON, Virginia,	pound	11	—
North Carolina,	"	—	—
Upland,	"	10	12
Louisiana — Alabama	"	—	13½
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 75	11 75
Do. do. baker's,	"	—	—
SuperHow. st. in good de'd	"	8 75	9 00
" " wagon price,	"	—	—
City Mills, super,	"	7 87	8 25
" extra	"	8 50	9 00
Susquehanna,	"	9 00	—
Rye,	"	6 00	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	—
Timothy (herds of the north)	"	3 00	—
Orchard,	"	2 00	2 50
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	75	1 00
HAY, in bulk,	ton.	12 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 75	7 00
Slaughtered,	"	—	—
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	36	—
PEAS, red eye,	bushel.	—	—
Black eye,	"	87	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	4 00	—
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	60	68
Susquehanna,	"	—	none
TOBACCO, crop, common,	100 lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappry, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 55	1 65
Red, best	"	1 40	1 50
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls. }	gallon.	34	35
" in hhds. }	"	—	33
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 25	—
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do,	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured,	pound.	—	13½
Shoulders, do.	"	—	11
Middlings, do.	"	do	do
Assorted, country,	"	10	10½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old,	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	—	—
CHOP RYE,	"	—	2 37½
EGGS,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,	"	4 00	4 50
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virgin. 2
Branch at Baltimore, do		Bank of Virginia, do
Other Branches, do		Branch at Fredericksburg do
MARYLAND.		Petersburg, do
Banks in Baltimore, par		Norfolk, do
Hagerstown, do		Winchester, do
Frederick, do		Lynchburg, 2½
Westminster, do		Danville, do
Farmers' Bank of Mary'd, do		Bank of the Valley, .. 2
Do. payable at Easton, ... 1		Branch at Romney, ... 2½
Salisbury, 2 per ct. dis.		Do. Charlestown, 2
Cumberland, 3		Do. Leesburg, 2
Millington, do		Wheeling Banks, 4
DISTRICT.		Ohio Banks, generally 6a7
Washington,)		New Jersey Bankagen. 5
Georgetown,) Banks, ½ p.c.		New York City, 1
Alexandria,)		New York State, 3a4
PENNSYLVANIA.		Massachusetts, 3a3½
Philadelphia, ½a		Connecticut, 3a3½
Chambersburg, 1		New Hampshire, 3a3½
Gettysburg, do		Maine, 3a3½
Pittsburg, 3½		Rhode Island, 3a3½
York, 1		North Carolina, 6
Other Pennsylvania Bks. 4		South Carolina, 8a10
Delaware [under \$5] 6		Georgia, do
Do. [over \$5] 2		New Orleans, 15
Michigan Banks, 10		
Canadian do, 10		

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—it will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Also, a good KAMAGE PRESS, now in operation; price \$60. Also, a STANDING PRESS, iron bound wooden frame, with a powerful screw; will be sold low.

Apply to SANDS & NEILSON, Office of "Farmer & Gardener," jy 25 4t Corner of Charles & Market sts. Baltimore.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultiva-	Threshing Machines, with
tors	or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime
Weldron Grain and Grass	Spreaders
Scythes	A great variety of Ploughs
Farwell's Patent Double	of all sizes, with wrought
Back Grass Scythes and	and cast iron Shares
Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of
Manure Forks, Shovels, &c.	Plough Castings, const-
English Corn Hoes	antly on hand for sale
Superior American made	by the piece or ton. All
Castee Hoes, with han-	kinds of Machine Castings
dles	made to order; repairs on
Wheat FANS, of various	Ploughs and Machinery
sizes	done at sh rt notice
Mattocks, Picks and Grub-	Liberal discount made to
bing Hoes	those who purchase to
Corn Shellers	sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

J. S. EASTMAN.

WHITE TURKEYS, GEESSE AND PIGS.

THE subscriber has for sale a few pair of pure White Turkeys, large Westphalia white Geese, and Barnitz white Pigs, which will be sent to order, cooped and furnished with feed suitable for a voyage, at \$10 a pair for the latter, and \$5 a pair for the two former.

ROBT. SINCLAIR,

au 7 4t At Clairmont Nursery, near Baltimore.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER AND GARDENER, North-east corner of Baltimore and Charles-streets, Baltimore, Md. April 18, 1837.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 16.

BALTIMORE, MD. AUGUST 15, 1837.

Vol. IV.

THIS publication is the successor of the late
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BALTIMORE: TUESDAY, AUGUST 15, 1837.

Spring Wheat—We refer our agricultural readers to our advertisement, in another column, of Spring Wheat. We call attention to it, because we shall not order any more wheat than may be engaged. Persons wishing to obtain this variety, will, therefore, do well to apprise us by letter without delay. It will be warranted genuine and to have been cleaned with the greatest nicety by one of the most exact farmers in the country.

Dutton Corn for roasting ears.—Besides the advantages of this corn as a crop corn, it possesses strong claims on the score of its early maturity for roasting ears. We planted in the same piece of ground a few rows of Smith's early roasting ear corn, and an equal number of the *Dutton*, with a view of testing the relative value of each for roasting ears. They were both planted the same day, manured alike, and received the same after-culture. The result was, that the *Dutton* corn gave us roasting ears just one week earlier than Smith's early. With respect to the quality of the two kinds for the use of the table, the *Dutton* is so much sweeter, so much more luscious, that it would be an invidious task to draw a comparison between them; for we are certain that no one after eating this variety would think of the other wherever this was obtainable.

An Inquiry—A subscriber residing in Alabama has made the following inquiry, which we publish in the hope that some of our readers in Massachusetts, will give the necessary information; and if it would not be too much trouble, we would feel indebted to the editor of the New England Farmer, to state through his excellent journal, whether the corn alluded to has been cultivated in his region; with what success; and whether any of it is still to be found in that quarter. We feel particularly anxious to gratify the desire of our correspondent, as he has done much to promote the welfare of agriculturists, and we are sure would

cheerfully, at all times, take pleasure in responding to a similar call.

Communicated for the Farmer and Gardener.

Mr. Roberts—In the "Southern Agriculturist" for July, 1832, will be found a notice of a species of CORN, found in Mexico, and transmitted to the Massachusetts Horticultural Society by Wm. Shaler, esq. given to him by the Baron de Karvinski, of a most singular production and growth. Will some of your northern readers state the result of the trial of this corn? or if it is yet amongst them.

A SUBSCRIBER.

Communicated for the Farmer and Gardener.

Mr. Roberts—In the "Morning Courier and N. York Inquirer" of the 11th of October, 1836, I discover an advertisement of a machine for cutting timber, felling trees and cutting, &c. I will be much obliged by ascertaining from some of your subscribers, how this machine has been found to succeed, as it appears from the advertisement of the inventor to have had a fair trial. It would be invaluable in a new country where forests have to be cut down.

A READER.

[We should feel greatly indebted to the editor of the New York Farmer, if it be in his power to give us, through his paper, any information he may possess in relation to the above machine.]

THE CROPS.

In every direction, we learn from our exchange papers, from our correspondence, and personal conversations with agriculturists, that the crops of all kinds that have been gathered are abundant in quantity and good in quality. The wheat crop, we think from the best judgment we can form from the materials before us, taken throughout the several states, is a very fair average crop.—There are parts of the country, however, where the quantity is not so great as in former years, and for the conclusive reason that less seed was sown. In Maryland, particularly, this is the case; for in addition to the discouraging results of the three preceding years, which of themselves were calculated to deter the cautious from sowing a large quantity, the seed itself was difficult to be obtained, owing to the inferior quality of a large portion of the wheat raised last year. The same remark will hold good as to Rye. The crops of oats, in every quarter are unusually heavy, and as greatly increased quantities were seeded, the aggregate raised is very far above that of any former year, which circumstance will exercise an influence to lessen the price. The crops of corn

are both large and promising, and we think it fair to infer that this will be the greatest corn year known to our land since its settlement. For in addition to the ground devoted to its culture, much of the wheat grounds were ploughed up early in the spring, and put down in corn—a practice at all times of doubtful policy. Corn too, must from excess of quantity come down in value. The early potatoes have proved most fruitful, and are now selling in our market at just half the price they sold for at this time last year, and if we doubt not the signs of the earth, our good friends, the Yankees, who have for so many years supplied this market with a portion of the potatoes consumed by our population, and for nearly fifty miles around for planting, will find themselves at fault should they venture to bring a tithe of their former quantities to this market.

HOGS.

The *Cincinnati Post* states that a large contract for hogs to be delivered the coming fall, has been made at \$2 50 cents per hundred. As the price of corn always regulates that of pork, a surer index could not be desired than the above fact furnishes, to determine two important points—first, that the corn crops are universally looked upon as promising abundant products—and secondly, that a greatly reduced price will consequently be obtained for the article. The demand for it the approaching season, will be materially decreased in the south and southwest; for many planters on hearing of the great fall in the price of cotton, ploughed up portions of their cotton grounds and put them in corn. This will cut off from the corn growers of the western and Atlantic states, some of their nearest and best markets for the time being; but the growing of corn in the cotton regions of our land, can only obtain while the price of the latter article is depressed, as when its market value is at the prices recently maintained, planters would not dream of growing their bread-stuffs.

TURNIP CULTURE.

As the time is now at hand to either make or ruin your turnip crops, we would respectfully make a few suggestions. As soon as your turnips are fairly out of the ground, take a bushel of powdered lime, one of unslacked ashes, mix them to-

gether, and sow these in the proportion of two bushels to the acre. If you cannot get both articles, use two bushels of either. In addition to these four pounds of flour of sulphur to the acre should be evenly spread over your field.

As soon as your turnips begin to bottle, run your harrow lengthwise and crosswise through them; you need not be fearful of injuring them, for although you may drag up a great many, there will be enough left to make a good crop, and there is no one but those who have witnessed the difference in the growth of this plant when thus treated, and when cultivated in the old mode, can form any idea of its extent. When the root of the turnip is as big as a walnut, a second harrowing is of great service. When the leaves cover as much surface of ground as could the human hand, they should be thinned out to about nine inches distance apart, and hoed. Two harrowings and one thinning, and hoeing, if well done, will prove sufficient culture to secure a good crop if the season be favorable.

COMMUNICATED FOR THE FARMER & GARDENER.

MANURING BY A PROCESS OF COW-PENNING.

[Continued.]

To produce the greatest result from labor bestowed, is a correct object to have in view by the farmer.

To manure my land then, the most effectually, which includes preserving to the land, all the strength, or valuable properties of the manure, and with the least labor, or more correctly speaking, by the most judicious application of that labor, was the object I kept steadily in view. Through the aid of your useful paper, to those who will read it, and with the help of some others, I put myself in possession of almost all the plans adopted by the most judicious agriculturists of our country. This advantage I readily secured to myself by substituting the *half pint* business, and some other equally absurd customs, for about ten of the best agricultural periodicals of the country, and found after all, that *I had something left*.—By a little exercise of arithmetic you will see that this is entirely feasible—and although I swallow on the arrival of the mail, the contents of your paper, and others, with greater gout, and thereby “get the worth of my money,” yet I swallow that worth with infinitely less heart burning than formerly. A gill is the allowance per diem, for the common soldier in the army,—a half pint does not suffice for the most common gentleman out of it, who permits himself to adopt the common rates of a moderate “*bon vivant*.”

I became perfectly acquainted with the application of long and short, well-rotted and new-made manure,—the time and mode of application, as also the plants to which both could be applied to produce the best result. As fast as I obtained any information, an application, if but with a dozen of plants, was immediately made, and I became

satisfied on rational ground, and certain “matter of fact.”

On one point in making manure, and preserving its action for the benefit of the plant, I became by a well tried experiment fully satisfied—viz: the benefit of keeping manure from being exposed to the action of the sun, wind, and rains throughout part of the year. I had a small out-house with an excellent cellar, and underneath and underground. I changed this little house into a stable for two horses and two mules. I placed two horses and two mules in an adjoining stable. Each sets were fed with corn, oats, &c., and well littered with leaves and straw, from the 1st October to the 1st March. The manure made by the one set was carefully shovelled into the cellar, and which received also all the urine; while the manure made by the other set, was thrown outside into a heap. The two piles, by my special directions, received, equally divided between them, all the liquid remains of wash days. Both piles remained at rest throughout March, and to the middle of April, when I began to apply them. I selected for this purpose a piece of land, say four acres, nearly exhausted, it had however a good foundation, lay well, had never been ploughed deep, having been always under the hands of “scratchers.” I literally “tore it up”—and planted early, in corn, cotton, cabbage and Irish potatoes, each an acre. Each lot received on it the two kinds of manure. The potatoes gave thirty-three per cent.—the corn twenty-five—the cotton twenty-five, and the cabbage twenty-five per cent. difference in favour of the manure from the cellar. In every case, when the plant was about nine inches in height, the earth was thrown from the plant, with a Dearborn plough, the manure hauled out and spread in the furrow, and as quick as possible covered well with the same plough. In the case of the potatoes, it was put as usual. In no case did the manure see the top of the ground during the season. To make the experiment fairly, two ploughs always ran together while tending, so that each article was actually ploughed at the same minute. The corn I cut down a la mode de Judge Buel, when glazed—but on the full moon in July I drilled between the rows, (five feet apart for that purpose) two rows of yellow ruta бага, and where the Irish potatoes stood the same—the difference here was about the same. In preparing the ground for the last crop, I ran a colter through the ground just before a rain. I brought little of the manure to the surface. I tended the turnips with the hoe. The cabbage ground I put in “globe” turnip; difference the same. The same experiment was tried the following year, with the manure of well fed milk cows and steers. The result rather greater in its difference. I was always of the opinion that the latter manure suffered more from the action of the sun, winds, and rain, than the first, being more readily dissipated in every way. The singular difference in the action of the two differently prepared manures, was exhibited strikingly, in the first stage of the plants growth. In my mode of improving my land by “cow-penning,” I endeavoured to avail myself of the benefit of the facts I had satisfactorily, to me, settled, as you will find hereafter.

Another point arrested my attention, for the first hint of which, I am indebted to your paper, viz: the great improvement that can be made on

land, even while manuring, by the addition of different earths, no other time being so happy to apply them—all soils are benefitted by observing this idea at the period of giving manure—if clay abounds in too great proportion, let sand or sandy mud be added—if sand, then let the clay or clayey mud be applied profusely, &c. &c., and if vegetable matter is wanting, let swamp mud be profusely applied. The observing of this theory, I am now assured, from perfect trial, is essential to manure to the greatest advantage. You will find that I have in my plan of manuring by “cow-penning,” availed myself fully of these facts, by carefully applying them.

A FRIEND.

[From the Am. Silk Grower and Agriculturist.]

“I have uniformly found that autumnal ploughing is the best for our plains, with harrowing in the spring. The drought never injures a crop on land thus prepared. Even beds for beets, carrots, &c. should be prepared in the autumn, and only raked in the spring. The roots grow straighter and longer, and without the radicles that are so apt to injure them.

As a proof that potatoes do best with autumnal ploughing and early planting, I would mention, that on a piece of land in my garden, 5 rods by 4½, I raised 80 bushels in one year. The land was not even furrowed in the spring; but holes were dug for the manure the last week in April, and planted immediately. They were planted in hills at about 2½ feet one way and 2 feet the other, and after the first hoeing a small quantity of ashes upon a narrow shingle put upon each hill around the potatoes.

The New York Herald says:

“Agriculture is again coming into vogue.—Banking, speculation, shaving, and the terrible mania of overtrading are passing away like the clouds of heaven before the northwest wind.—Even in Wall Street, people now begin to talk of farming and short horns, and in the drawing rooms, the furniture of which has just been knocked down by the auctioneer, fine ladies want to study dairy matters, and wonder if they can make good butter in Indiana. The whole fabric of banking, credit, towns on paper, and lithographed cities, are going to perdition. Real farming—ploughing—raising wheat—planting corn—seed time—harvest—are broached by many of our fashionable people.”

Maine Silk.—Happening on Saturday to go into the Silk Dying establishment of Phinney & Packard we were shown a quantity of sewing-silk made by Nathaniel Norcross of Livermore, which had been sent there to be colored. We were told that it was of superior quality. There was about a pound and a half of it, which at \$10 per pound, amounted to \$15. Mr. Norcross we understand expects to make a much larger quantity this year.—Kennebec Jour.

Mr. Bateman presented us, a day or two ago, with a skein of sewing silk, the produce of worms raised by himself this year. The silk is excellent, and of a beautiful glossy colour,—the worms were fed on black mulberry leaves.—Eas. Gaz.

[For the Farmer and Gardener.]

The weather and crops in Missouri—unfavorable effect of the rain—good effect of deep planting in corn culture—advantages of late ploughing—slabbering in horses; speculations as to cause and cure.

DARDENNE, Mo., July 24th, 1837.

Mr. Roberts—In a former communication, made at your request, a sort of history of the weather with its influence upon the agricultural productions of this region was attempted up to the date of that communication, which was 29th May last, and now, without making any apology for the intrusion, I resume the subject, and here offer you some of the results of the decided change which took place in the character of the season about that period. The weather, from having been almost uniformly cold up to that time, became pretty suddenly warm, and on the last day of May, we had a most copious and a warm rain, and in about two days the ground became dry enough to replant corn, and as there was much of that work to do, it occupied the time of farmers until it commenced raining again, which it did on the 4th June and continued to rain until it drenched the earth completely, and keeping the ground too wet for the plough up to the 12th; we then had four or five days of fine weather for ploughing, when the weather again became very wet, and from that time up to near the middle of the present month the ground was not in order for the plough more than three days; one soaking, saturating, and often deluging rain succeeding another so closely as almost totally to suspend business for nearly a month, at the most important period of the season to farmers. On the 6th and 7th of the month, we had the greatest freshet with which the country has been visited since I have lived in it; and some of the oldest inhabitants of the country with whom I have conversed, say it has been the greatest flood they have seen. It threw all the water courses of the country out of their banks, not even excepting the Missouri, which was never known to inundate its low grounds but once before, (in 1834) raising the water of the small tributaries of the Missouri, many feet deep over their low grounds generally, and causing the destruction in very many instances of the entire growing crops, and in not a few cases carrying off all the soil brought into a state of pulverization by cultivation; doing considerable damage to every farm from which I have heard, that is situated on the low grounds of the tributaries of the Missouri.

We have had some partial thunder-showers; pretty heavy in some places, in others none; but no general rain since the great flood of the 6th and 7th. It will readily be supposed that the corn crop of the country would get into very bad condition during such a long suspension of cultivation, at such a period of its growth: indeed, our corn fields had become almost wildernesses of either weeds or grass, according to the natural properties of the soil, and just as the ground became fit to be stirred, we were compelled to attend to the summer harvest, the wheat, rye, and flax crops, having ripened at that particular time, so that the corn crops did not and could not receive that prompt and exclusive attention, which its importance and its then situation required. It

is impossible to make any thing like a tolerable estimate of what the present corn crop will yield at its present stage, that yield depending on so many contingencies yet in the future; but if the balance of the season be entirely propitious, it may yet make a tolerable, if not an average crop: if, however, the remainder of the season be dry, or if we have early frost, our *cake* will probably be pretty much *dough*.

The weather during almost the entire month of June was too wet for wheat, and produced disease, the scab in many crops, particularly on low grounds, and crops sown amongst standing corn; but on the large body of our high prairie land, which comprises the bulk of the wheat region here, where the crop was well put in, the grain is of good quality, and varying as to quantity according to circumstances, from 3 or 4 up to perhaps near 20 bushels per acre. Our vegetable crops have suffered from the wetness of the season as much as the corn crop has done; even our gardens unavoidably became little miniature wildernesses, the crop of weeds overtopping and concealing the cultivated crops. The rainy weather of June produced great improvement in the *oat* crop of this country; it will be pretty abundant, and now being harvested; the crop of timothy, is the most abundant one the country has ever produced, and is now just ready for the scythe.—From the foregoing statements it will be perceived, that we (the farmers of this region) have our hands full to overflowing, of important work, having three different, and all of them very important crops, on our hands at the same time, viz: the corn, which yet needs, and must have, considerable ploughing; the oat crop, and the grass, some of which must unavoidably suffer.—The crop of clover was unusually light this season, much of that plant having hove out, and perished last winter, besides which, it could not be saved until it was too ripe, on account of rainy weather.

All the theories which I have seen published on the cultivation of the corn-plant, seem to presuppose that the soil never runs together, and becomes stiff at an advanced stage of the growth of that plant, and therefore recommend light cultivation, or a mere scarification of the surface, and I will readily admit, that if the soil could be kept loose and mellow, that deep ploughing would not be necessary and might possibly be injurious. I say possibly, because I have seldom seen injury result from deep and late ploughing, and have often seen the most striking benefit result from it.—In 1833, just when we were giving our corn its last working, we had a heavy, beating, saturating rain, and as soon as the ground would permit, I made a desperate push, and stirred all my corn ground, apprehending a drought, the corn then generally in silk, ploughing somewhat lightly next to the corn, but deep and thoroughly in the intervals. The apprehended drought came on as I had anticipated, but my corn grew on and flourished, and produced a bountiful crop, apparently feeling but little inconvenience from the drought, while my nearest neighbor, and whose farm is separated from mine only by a fence in common, not properly appreciating the importance of a little extra exertion, in particular cases, and possibly too, if he could have placed the proper estimate on such extra exertion, would have been incapable of ex-

ercising it, was able to fresh plough only a portion of his crop, before the ground became so dry, hard, and the weather so hot, that he became apprehensive of serious injury both to the crop and to his work-horses, and stopped, having run four ploughs, and each ploughman having taken a strip of several rows in width, a part of each strip being ploughed, and part remaining unploughed, throughout the season. Late in the fall of that season, I passed across that field, and the difference between the corn which had received the late ploughing, and that which had not, was so striking, that it became a matter of curiosity in the neighborhood, and was noticed by all persons that saw that field. So truly *striking* was the difference, that it might be seen at the distance of two hundred yards: to a row even where the plough had only been applied to one side of the row, the advantages I should say was nearly or quite 100 per cent. in favor of the late ploughing. In this instance, and it is worthy of remark here too, that the drought continued until the crop had nearly or quite ceased to grow: it seems to me, that the roots of corn plants are pretty much like what naturalists say of the long red earthworm, that is, that the division of the subject is the means of its multiplication. Upon the whole, I have come to the conclusion, that injury will very seldom result from ploughing corn deep and late, unless there be danger of frost, for the corn will uniformly take a fresh growth after each ploughing, unless it fire, which is seldom the case here, and when it does, it generally follows the ploughing immediately, if it occur at all.

Horses *slabber* worse this season than I ever saw them do. Is there no remedy for this?—Writers say it is produced by succulent watery food, and recommend dry food as a remedy, such as corn, oats, or hay; now after the great rain of the forepart of this month, and before the ground became dry enough for the plough, or the wheat ripe enough to cut, I employed my little force in cutting grass and making hay. I cut 3 or 4 acres, and cured it as nicely as any I ever saw; am now, and have been for ten days past, feeding my plough-horses on it, and it produces copious slabbering on some, and considerable in all of my work-horses, so that the idea of the superabundance of aqueous matter in the food, must be certainly exploded, and the cause sought for in some other quality.

It has been repeatedly asserted by seemingly reputable writers in your paper, that clover does not produce slabbering in horses, but that they probably took in with the clover some acrimonious plant, such for instance as the *lobelia*, but my farm does not produce the *lobelia*, I never having seen half a dozen plants of it on the premises, nor any other acrimonious plant, and still my horses slabber tremendously; they, however, feed on that plant with perfect impunity until about the time the first crop matures its seed; but from that time onward throughout the season, whether they feed on the tall grown seed plant, or graze on the short and tender bud just springing from the sod, copious salivation is the inevitable result. May not some insect, too minute to be discerned by the unassisted vision of the human eye, infest the plant, making its debut for the season at that particular period? I have recently heard that green hemp is a sovereign remedy for this disease, for

a disease it certainly is, for the time being; but have not had an opportunity of testing its virtues, as I do not cultivate that plant.

Excuse the unusual length of this communication, and discard any portion of it that you may deem unimportant.

Yours, &c. &c.,

JOHN SMITH.

[From the Columbia (S. C.) Telescope.]

BET SUGAR.

Mr. Editor: Forty years ago Oliver Evans of Philadelphia called the attention of the public to the prodigious advantages that might be obtained from the use of Steam Engines; and introduced among us (a couple of years after Trevethick's patent in England) the high pressure Engine. But he made experiments, however conclusive, to his own loss only; he was too much ahead of the knowledge of the day. Those who saw his experiments doubted their own senses, and "like the deaf adder, turned their ears from the voice of the charmer, charm he never so wisely."

In 1814, Dr. Thomas Cooper delivered his introductory lecture on Chemistry at Carlisle in Pennsylvania, which he immediately published with notes. In one of these notes, he recommended strongly the use of Locomotive Steam Engines, and detailed a series of experiments in England on the great superiority of this form of power. This, too, was a notice somewhat too early for the level of knowledge at the time. But the war breaking out with England, and the articles on Steam Engine in Cooper's Emporium, gave a stimulus to domestic exertions and invention, and Steam Engines have prospered with astonishing success since that time forward.

The first volume of Dr. Cooper's Emporium, was published in 1813. In p. 179 of that volume is the following by that gentleman on Beet Sugar:—

"I observe in some late numbers of the *Moniteur*, a Paris newspaper, that up to April, 1812. (*Moniteur* of April 19th of that year,) 214 licenses had been taken out, for the manufacture of Sugar from Beets, in France. Hence I presume it must be, not only a practicable, but in that country a profitable concern, or the tax would not be paid for the license.

"Klapsoth, who repeated Achard's experiments on this subject at Berlin, procured from 25 Beets, which when topped and scraped weighed thirty two pounds and a half, nineteen pounds and three quarters of juice by expression. The squeezed residuum was boiled in water, and again pressed. The liquors added together were boiled to a syrup, strained, and slowly evaporated. The raw sugar amounted to two pounds and 12 oz., about the fourteenth of the raw beet. (An acre of beets may be reckoned at from 10 to 16 Tons.)

"The King of Prussia in the fall of 1799 appointed a committee to repeat these experiments. They did so. From 1500 lbs. of Beet Root they obtained 393 lbs. of Syrup, which yielded 57 lbs. of tolerably white powder Sugar. This was in the proportion of somewhat more than a twenty-sixth part of the weight of the Beets."

In the same volume of the Emporium, the Editor (Dr. Cooper) notices the experiments for

producing sugar from Grape juice, and sugar from Starch. The present Mr. Dupont of the Powder Manufactory, near Wilmington, in Delaware, produced from Rice 94 parts out of 100 of Molasses.

By the exertions of Messrs. Ronaldson, Vaughan, and Snider, of Philadelphia, the manufacture, &c. of Beet Sugar is likely to be introduced into the United States, and successfully. I observed it noticed in the papers, that one manufacturer of steam engines in a Northern State, has orders for 27, to be employed in the manufactory of Sugar from Beets. The produce at first to be expected is 6 per cent. Some of the French manufacturers produce 8 per cent. from the Beet.

The squeezed residuum is excellent food for cattle. See the report on this subject by Mr. Pedder, lately published in Philadelphia.

Messrs. Ronaldson, Vaughan, and Snider, of Philadelphia, three men whose object it is to incur expense for the good of the public, without benefit to themselves, have procured from France a considerable quantity of the beet seed of the Sugar Beet. I understand Mr. Russel of Columbia, has purchased a part of it, sufficient for the supply of those who wish to make an experiment on the culture of the best kind of Beet, whether for the Table or for Sugar. The Beet requires a rich deep soil, to flourish to perfection.

So it is; useful projects have to be reiteratedly prepared and urged on those for whose benefit they are intended. A man who means to do good to his fellow men, must have patience and accommodate himself to the carelessness of those he means to serve. No man is a patriot who is not content to work for posterity, and bear disappointment in his own day. A well based effort, is never lost. The writer of this communication heard Hugh Legar, Esq., about nine or ten years ago, state in the House of Assembly here in Columbia, that when the objections to the Constitutionality of the protecting Tariff were started, every body considered the notion as one of Dr. Cooper's paradoxes. I fear that old gentleman has many such Paradoxes to answer for. BEET.

From the New England Farmer.

POND MUD.

"The mud from ponds, when they are cleaned out, has always been an object of attention to farmers, so far as regards its collection; but it must be presumed that its different properties, and consequently the most judicious modes of its application to the land, are either but little understood or neglected; for some cart it directly upon the ground, and plough it in, either for turnips or for corn-crops; others spread it upon old leys; and many lay it out in thin heaps to dry, after which they mix it with lime or dung. Upon this it has been remarked, by an eminent agriculturist, that in reasoning with the farmers upon the cause or principle by which they are guided in those different proceedings, the reply is generally 'that it has been their practice to do so—that it has answered very well—and that they know of no better mode of treating it.' It may be observed, that ponds, being usually placed at the lower parts of the fields, receive, after every hard rain, a part of the soil, as well as of the substances with which they have been manured. If the ponds be large

and deep, they may also acquire much decayed vegetable matter, arising from the aquatic plants with which such pools usually abound; and if near the yards at which cattle are commonly watered, they must likewise receive a portion of their dung: such mud is, therefore, particularly applicable to light soils, both as containing nutritive matter, and adding to the staple and consistency of the land. The most common time of mudding ponds, is during the summer months, when it is usual to let the slime lie near the edge of the pond, until the water is drained from it. A spot is then marked, either upon a head land of the field upon which it is to be laid, or as near it as possible, of a size to raise a compost with alternate layers of either lime or dung.

If dung can be had, the best mode of preparing this manure, is to lay a foundation of mud, of about a foot or a foot and a half in depth, of an oblong form, and not more than eight feet in width, upon which the freshest yard dung is laid to about double that depth; then a thin layer of mud; after which alternate layers of mud and dung, until the heap be raised to about five or six feet in height—keeping the sides and end square, and coating the whole with mud, at least twice, at different periods.

If quick lime be used, and there remains any moisture in the pond scourings, it will be sufficiently fallen for turning, in a few days; but if the compost be made with farm-yard dung, it may require to remain six or eight weeks to ferment and decompose, before it is in a proper state for turning. To form them in the first instance, with both quick lime and manure, is injudicious: the former ought never to be brought in contact with the latter—though manures may be advantageously incorporated with an old compost, in which a little lime has been used. It appears the better mode to apply it in the latter end of autumn, or early part of winter, and to bush-harrow it well after it has been hardened by frost.

Sea mud or *Sleech*, has also been used in some places in large quantities, and has been found of so very enriching a nature, as to amply remunerate for carrying it to considerable distance. It is generally laid upon grass in autumn, and ploughed in without any addition in the following spring. It is also found that its effects remain longer on the land than marl; and although that which is over-marled is spoiled for grass, yet that never happens to sea-mud."—*British Husbandry*.

ROTATION OF CROPS.

The subject of rotation of crops is one of great interest to the farmer, and although it is a practice which is of great antiquity, yet not so much is known respecting the philosophy of it, or indeed the mere practice of it as there should be.

It seems to be founded upon the following principles. 1. "That different plants absorb from the same soil different juices, and that a piece of ground exhausted by culture of one kind of crop upon it, may still contain juices proper and suitable for another crop. It is known however that plants absorb all soluble substances that the soil contains, whether injurious to their growth or not.

2. The roots of different plants being of different lengths, extend into different layers of the soil, and thus derive from it proper nourishment.

The roots of all plants at the time of sprouting or germination must be in the same stratum of soil and must be equally dependent upon it, besides, by cultivation the soil is turned over and the different layers are mingled together so as to give them a sameness of quality."

The theory which seems to be most plausible to account for the propriety of the rotation of plants, is that advanced by Decandolle, viz: That plants reject or throw out from their roots into the soil such portions as are not most salutary to them, and that when the soil becomes charged with such juices that plant will cease to grow; but another kind may require these very juices for its sustenance, and consequently grow luxuriantly in it.

We believe there is something in this more than mere theory.

Experiments tried by different people go to establish the fact. M. Macaire, a French Agriculturist, among other experiments, tried the following. He put some peas and beans in pure water. They flourished very well for a long time, and the water became yellow and was found by evaporating it, to contain a matter analogous to gum and a little lime. When water in which these plants had been raised, had become pretty well charged with the above matter, fresh plants of the same kind would not do well in it. But if plants of wheat were put in, they lived well, the yellow color of the water changed—the residuum gradually disappeared, and the wheat evidently assimilated to itself the matter which the former plants had thrown out. Hence it was inferred that wheat would do well after peas and beans. This we believe is found to be the fact in practical agriculture; and many farmers like to have a crop of peas or beans to precede their wheat crops. It would be well for farmers to observe closely, and ascertain what plants will succeed each other best, and profit by the results.

[From the Complete Practical Farmer.]

MOWING.

They who have not been in their youth accustomed to do this work, are seldom found to be able to do it with ease and expedition. But when the art is once learnt, it will not be lost. As this is one of the most laborious parts of the husbandman's calling, and the more fatiguing as it must be performed in the hottest season of the year, every precaution ought to be used which tends to lighten the labour. To this it will conduce not a little, for the mower to rise very early, and be at his work before the rising of the sun. He may easily perform half the usual day's work before nine in the morning. His work will not only be made easier by the coolness of the morning air, but also by the dew on the grass, which is cut the more easily for being wet. By this means he may lie still and rest himself during all the hottest of the day, while others who begun late are sweating themselves extensively, and hurting their health, probably by taking down large draughts of cold drink to slake their raging thirst. The other half of his work may be performed after three or four o'clock, and at night he will find himself free from fatigue.

If the mower would husband his strength to advantage, he should take care to have his scythe

and all the apparatus for mowing, in the best order. His scythe ought to be adapted to the surface on which he mows. If the surface be level and free from obstacles, the scythe may be long and almost straight, and he will perform his work with less labor, and greater expedition. But if the surface be uneven, cradley, or chequered with stones, or stumps of trees, his scythe must be short and crooked. Otherwise he will be obliged to leave much of the grass uncut, or use much labor in cutting it. A long and straight scythe will only cut off the tops of the grass in hollows.

A mower should not have a snead that is too slender; for this will keep the scythe in a continual tremor, and do much to hinder its cutting. He must see that it keeps perfectly fast on the snead; for the least degree of looseness will oblige him to use the more violence at every stroke. Many worry themselves needlessly by not attending to this circumstance.

Mowing with a company ought to be avoided by those who are not very strong, or who are little used to the business, or who have not their tools in the best order. Young lads, who are ambitious to be thought good mowers, often find themselves much hurt by mowing in company.

Mowers should not follow too closely after each other, for this has been the occasion of fatal wounds. And when the dangerous tool is carried from place to place, it should be bound up with a rope of grass, or otherwise carefully secured.

[From the Albany Cultivator.]

THE WOOL MARKET.

As the clipping time is near at hand, I have thought some remarks on the subject of wool would not be uninteresting to those who are engaged in sheep husbandry. I am largely interested myself, and with a view of learning the actual state of the market, I have just visited many of the manufacturing towns of Connecticut and Massachusetts.

In consequence of the extensive failures or suspensions of many of the large commission houses in New York, the manufacturers were more or less embarrassed. The losses of some were so great as to cause a failure, while others witnessing the storm around them, immediately stopped their mills and discharged their hands. The great majority of the woollen mills are of this class, who stopped from expediency, more than necessity. They have worked all their wool, and finished all their goods, and only wait for a change of times to start their machinery again.

Nearly every mill has on hand the cloths manufactured in the last four months, and they will not be sent to market till the fall sales commence when fair prices will doubtless be obtained.

The stock of domestic woollen goods in Philadelphia, New York, or even in the country, is not large. There is no difficulty from an over-supply. It is well known that there will be few or no woollen goods imported this season, and our own manufacturers will have the entire benefit of the market.

The present state of affairs prevents the importation of either wool or woollen goods. The duties are required to be paid in cash, when imported, which now amount to almost prohibi-

tion. Indeed, since the bursting of the credit system, as practised by importers, goods will hereafter, from necessity, be imported for cash.

All these things will eventually help our manufacturers, by giving them the market of this country, quite as effectually as by an excessive tariff of duties.

The manufacturers of New England are by no means broke down or disheartened, but like prudent men, are holding up for a change of times. They will do very little for the next ninety days, but by that time they will nearly all be at work. It is evident there will be no demand for wool till fall, when I see no reason why good prices should not be obtained. If cloths sell well, wool must do the same.

Every man can make his own inference, but my advice to wool growers is, not to dispose of their wool this summer, but by all means keep it till fall. After shearing, place it in a pile, in a clean, dry loft, and cover it over with some blankets, and there keep it till business is again resumed. Many will sell at once, for the most they can get, and thereby deprive themselves of a better market, later in the season.

Soiling Milch Cows.—The Zoarites, a religious sect of Germans, on the Muskingum river in Ohio, keep their milch cows constantly in the stall and feed them with the offal of the milk, hay, roots, &c., and they are said to yield an extraordinary quantity of milk—some twenty quarts a day through the year. They also pay particular attention to their cleanliness. Their stalls are thoroughly washed daily, and the water used for this purpose, is carefully collected in reservoirs, and applied, in the form of liquid manure, to their hot houses and gardens.

In a late communication to the British Board of Agriculture it is stated that 30 cows, 1 bull, 4 calves, and 5 horses, were fed through the summer from 15 acres of clover, sown the preceding year. The labor of two men and two women, was sufficient to tend them, and the nett produce of the season, in butter, from June to October, was £19 10s., nearly \$90 from each cow.

Silk Cult.

Spring Wheat.—The Winchester Virginian of the 8th, says, "our attention has been called to a very fine specimen of *spring wheat*, raised in this neighborhood by Mr. William Jenkins. This wheat was obtained from seed procured in Connecticut, was put in ground on the 7th of April last, and was reaped on Friday last. The average height of the straw is about 5 feet, and the heads are remarkably well filled. Mr. J. has obtained about 4 bushels from the sowing of one peck, upon the fourth of an acre of ground. This wheat is of a remarkably fine quality, and is estimated to weigh about 62lbs. to the bushel. We think the experiment made by Mr. Jenkins may be considered as entirely successful, and as establishing the adaptation of this kind of wheat to the soil and climate of this section of country."

Crush the corn given to fowls in winter, and soak it in water. This helps digestion; and fowls will lay in winter when so fed, that would not otherwise.—*Monthly Magazine.*

[From the Quarterly Journal of Agriculture.]

Ripening of Corn, and Ploughing of Green Crops for Manure.—In proportion as the fecundated ear increases in magnitude, the leaves near the root begin to grow yellow and dry in consequence of the stem drawing from them the carbonaceous materials which they contain. As the growth advances, the base of the stem becomes yellow and dry in its turn, while the upper part remains green, and continues to nourish the ear.

The beautiful researches of M. Biot afford interesting explanations of several agricultural practices hitherto not well understood, at least in a scientific point of view. For example, when the base of the stem begins to become yellow and dry, if the corn be then cut down, though the grain is not ripe, it will continue to be nourished at the expense of the green matter in the upper part of the stem, almost, if not quite as well, as if it had remained uncut, and will thus ripen well; while having been thus cut down early, much loss from shaking is prevented, besides the chance of loss by lodging from heavy rain and wind. M. Biot's experiments, from his well-known high character for rigid accuracy, are therefore well calculated to give farmers confidence in cutting down their corn, as soon as the lower leaves and the lower part of the stems are yellow and dry, though the upper parts be green.*

Again, as the leaves and stems of plants while green, contain sugar and other carbonaceous materials for nourishing the seeds and bringing them to maturity, it follows that, if they are in this state ploughed down into the soil, they must greatly enrich it with all the products ready prepared for the nourishment of plants.

It has been proved, indeed, by other experiments previous to those of M. Biot, that the leaves and all the green parts of plants decompose the carbonic acid gas of the air, appropriating the carbon, and setting free the oxy-

*It is a good practice to cut down every kind of grain before it is fully ripe in the grain or the straw, and that for the reasons just enumerated in the text. But, as M. Biot's observations and common practice do not exactly agree as to the symptoms which determine the time of cutting, it is as well to note the difference. In a fine season, farmers cut down when they find the neck of the straw immediately under the ear free of juice, when twisted round between the finger and thumb; and do not wait until "the lower part of the stems are yellow and dry," because they find in such a season the straw to die from the ear downwards. This fact, we conceive, does not militate against M. Biot's theory, for as the absorbing power of the ear at the top of the stem is always powerful, it must be the more powerful the nearer the ear approaches maturity, and, of course, the part of the stem nearest the ear should first become dry. In a bad season, on the other hand, the lower part of the stem first becomes yellow and dry, after which, of course the crop is not allowed to stand; for, in such a season, the ear never becomes mature, having, of course, less absorptive power, whilst the vitality of the root is destroyed by the combined effects of bad weather and ungenial state of the soil.

Editor.

gen; and hence it has been inferred, that the carbon thus derived contributes to form their mass of sugar and gum, additional to the sap absorbed from the soil by their roots. This view is corroborated by the difference which M. Biot has shown between the composition of the leaves of wheat and the stem, which is more especially supplied from the soil. If then, a portion of the solid frame-work of plants is derived from the air in the form of carbon, the ploughing down of green crops for the purposes of manure, gives to the soil more than the plants, while growing, had extracted from it.

We may well conclude with M. Biot that "every positive determination in science is susceptible of progress and of useful application, though these may be distant. A microscopical observation, or an optical property, which at first appears only curious and abstract, may thus in time become important to agriculturists and manufacturers."

Apples make a most excellent food for horses. Several physicians of extensive practice in Connecticut and Massachusetts feed their horses on apples and hay, and I have never seen fatter horses, or more sleek and spirited. Their hair is much more lively, and requires less grooming than that of horses fed on grain. Mr. Norton, of Farmington, Conn., has about the finest pair of horses I have seen. They are fed mainly on apples and hay. They travel very fast and seem to have both wind and bottom. It is proper, however, to remark, that not so much grain is given to horses at the North as is customary at the South. One thing is worth noticing; horses fed on apples do not eat as much hay as when they are fed on grain. Very sour apples injure the teeth of horses; but when boiled they do not. The rule of feeding is to commence with a small quantity, and gradually increase to a bushel a day for one horse.

Apples are most excellent food for bees. The fattest beef I have seen was made so on sweet apples.

Nothing will fatten mutton quicker than apples. It is necessary, or best, to cut up the apples when fed to sheep.

Hogs care nothing for corn, if they can get apples: if sweet, the apples may be given without boiling, if sour, they must be boiled. Mixed with corn-meal the flesh is firmer.

Apples increase the quantity and quality of milk. At first there was a prejudice against giving apples to milch cows, because it was thought they diminished or dried up the milk. It is true that a gorge of apples, or any other green food, will cause a fever and dry up the milk; but given in proper quantities, the effect is quite different.

Cattle and hogs are purchased and fattened on apples, and sold at a fine profit, when to fatten them on corn would ensure a loss.

Sweet apples, and good eating apples, are to be preferred as food for horses, sheep and cows; also for hogs, though some recommend a mixture of sour and sweet for hogs.

Spring Wheat.—The severity of the winters, for several years past, having destroyed much of

the fall seeding, and having mainly contributed to bring about the failure of the wheat crops, many farmers are beginning to turn their attention to the culture of Spring Wheat. It has been seeded in small quantities, only, with the view of making the experiment, and of testing its adaptation to our soil and climate; and, as far as our knowledge extends, they have been attended with the best success. Encouraged by the success of the few who have tried the Spring Wheat, many have determined to reserve a portion of their ground the ensuing fall, for spring seeding. While on this subject we will mention an experiment made with the Yellow Bearded Wheat, the present season, of which we have just been advised.—A gentleman in Delaware, whose wheat looked not very promising, was induced in the early part of the Spring to make a trial of this wheat. He accordingly procured and seeded a quantity of it, and has had the great gratification of seeing it come to maturity, giving promise of an abundant yield.

[From the Maine Farmer.]

CULTURE OF WHEAT.

Mr. Holmes:—It has ever been my desire to benefit the culture of wheat in this State. I have thought that a few observations on the several varieties sowed in my neighborhood—and on the effect of thrashing seed wheat by the horse power machines now in use—and a few observations which I have made, as I think, on the weevil will constitute the subjects of this communication.

And first—the Malaga, as it is called. This is a kind of wheat introduced among us some twenty years ago or more, which was a very good variety of bearded wheat, but for the want of being taken the best care of, and the natural tendency to deteriorate when often sowed on the same soil and in the same climate, may not now be the most profitable variety to sow. The flour was like almost all bearded wheat, of a yellowish cast, but fine, sweet and good. It was said to be brought from Malaga by a gentleman belonging to Exeter, N. H. The second variety is Tea or balled wheat, which seems to be a renewal of the old balled wheat which became (run out as it is called) in this part of the country, from being often sowed here, and was called Siberian wheat. It grows taller than any of the varieties of the bearded wheat, makes whiter flour than the bearded wheat, and will probably sell better in the market. The bread from its flour ought to be mixed thinner in its paste; as it dries after baking, sooner than bread made from the bearded yellow flour. It needs to be sown thicker than any other variety with which I am acquainted. If it has been threshed by the common horse power machine, two and a half bushels to the acre are not too much. It is well adapted to sandy soils, and it yields a less number of bushels according to the straw than the bearded. So far as I have heard, it has done well during the last season. It resisted the weevil more than the bearded. As what is called the weevil or more properly grain worm is produced by a fly, may it not be that the beard in wheat is a convenience to the fly while depositing its egg. Since I have introduced the plan of sowing thick, if the seed is threshed by the common horse power, I will explain my belief as it respects that subject. I believe that smut is pre-

vented by lime, hot lye, vitriol, and many other things, by soaking the soft sickly kernels to the *chit*, as it is called, and of course kills their vegetating powers, and they do not come up. I believe that in threshing by horse power there are many kernels cracked, and are, by consequence, soaked and killed by the process made use of to prevent smut.

I am satisfied that I must sow thicker than I did when I threshed by hand.

Third. White bearded wheat sowed by many people five and twenty years since, was a good variety, but as a distinct and separate variety I do not know where it is to be found; a renewal of that variety is desirable.

Fourth. Black Sea wheat is a variety obtained through the New England seed store, from Mr. Williams, of Fitchburg, Worcester county, Mass., which was brought him by his brother, from the Black Sea. It is a mixture of four kinds, which to me shows that in that country they find an advantage in mixing those kinds that will ripen together. According to Mr. Williams' statement and the report of the Committee who examined the facts in regard to his crop, he certainly raised very large crops. I have raised it for two years, it is all bearded wheat, has a stiff straw, and one variety among it is a short headed double rowed kind which I have never before seen.

It came from Malaga, and is probably a renewal of that variety.

It seems to be well suited to land in a high state of cultivation. I have heretofore, and I think I can raise much the greatest crops from a cross of different kinds together.

I have the old Malaga, the Deering wheat, (so called) the Italian wheat—the Lake wheat, and another kind which I purchased from Anson, mixed, from which, I have obtained the best crops, and I intend mixing the Black Sea wheat the coming year.

Fifth. The Lake wheat is a tolerable good kind to be sown by our farmers, it is a bearded wheat, and has nothing in it very remarkable. The same may be said of the Deering wheat.

I acknowledge my ignorance respecting the weevil, (grain worm as it is called) but in my neighborhood, I think I have observed that the bearded wheat has been most injured the past year. Wheat on low lands and nigh rivers has been more injured than that exposed to wind, especially the North and West winds. I have heard it said that they stay in one place but three years. I do not wish to be cursed with them for even that time. The exposed and upper part of the head of wheat seems to be most injured.

Mr. Editor, I really wish you would collect all the facts you possibly can respecting so dreadful a scourge as this insect. If all the facts were collected, I should be in hopes that there might be some mode devised to prevent his ravages, or destroy him.

N. Y.

Winthrop, Feb. 1837.

We were a few days since presented an Early York Cabbage, from our friend, Foster Maynard, Esq., weighing 6 lbs. 11 oz. It is the largest we have seen of this year's growth—our neighbors, Dr. T. H. Dawson & Sons, have engaged seed from him, where those fond of this vegetable can procure them for the next year.—*Easton Gaz.*

[From the Virginia Farmer's Register.]

HEDGES—OSAGE ORANGE.

Hitherto, attempts to construct live fences in this country have mostly failed, in consequence of the want of adaptation in the material to the circumstances of soil and climate. The thorn flourishes well in the humid climate of England, but in our hot and dry seasons its growth becomes feeble and stunted. The cedar and some other plants, though very ornamental, constitute weak barriers against the inroads of stock.

So many unsuccessful attempts to grow hedges, especially in the states north of us, have induced a general prejudice against that species of enclosure. Every person, however, is disposed to admit, that if a suitable plant for the purpose could be introduced, it would be an important acquisition. At present, each farm is obliged to have from a fifth to a third of its contents in timber, in order to maintain its enclosures. If sufficient hedges could be substituted, the advantages would be obvious. A large portion of good land, now unproductive, might be brought into cultivation; and a great amount of labor might be saved, which we are now compelled to bestow on the present system of fencing—to say nothing of the improvement in the rural appearance of the country, which would be effected by doing away our unsightly log fences, and rearing hedges in their places.

It is gratifying, therefore, to be assured, that in one of our native plants, namely, the *maclura* or Osage Orange, we are likely to realize this desirable object. The *maclura* is a deciduous tree, growing indigenously in Arkansas and Louisiana—is perfectly hardy in this latitude, and even as far north as Boston. For a number of years it has been cultivated in the grounds of a few private gentlemen, and in some of the large nurseries. It is only recently, however, that its value has been appreciated, or any pains taken to propagate it extensively. In its native *habitat*, it attains to the size of a tree of the second or third class; but in this latitude, its altitude is very moderate, seldom rising to the height of fifteen feet. Its great merit consists in the spreading manner of its growth, the denseness of its branches, and the armature with which they are furnished. Planted in hedge-rows, the *maclura* would never become unmanageable on account of its size; at the same time, its growth is sufficiently vigorous to make a fence in three, four, or at most five years, from the seed. It may be asserted with safety, that on land of tolerable fertility, the labor and expense of perfecting a system of hedges, would not be greater than to keep our ordinary enclosures in good order, for the time required to construct them. When completed, this heavy item in every farmer's account would thenceforth be expunged.

The *maclura* is readily raised from the seed.—Unlike those of the thorn, they require no preparation—on the contrary, they vegetate with certainty in two or three weeks after planting. Under tolerable care, the seedlings will grow two feet or more in height the first season; after which, they are fit to be removed from the nursery rows to the place designed for the hedge. I raised a number of plants the past year from seeds, the produce of a tree growing in my garden, now 8 or 9 years old.

For an individual to engage in the business in

earnest, it would be best for him to obtain the seed from the south-west, rather than to purchase the plants from a nursery man. A few dollars would procure enough of the former, and pay all the expenses of transportation, to set a long line of hedge. The preferable mode would be to have them brought in the berries, from which they might afterwards be picked without much trouble. Fifty berries would yield at least a pound of seed, and a pound contains from eight to ten thousand grains. It is the practice to place the sets from 12 to 15 inches apart, in a single row. These facts will enable any person to form a correct judgment of the number necessary to plant any given length of hedge.

But it is not to be expected, whatever may be the adaptation of any plant to the purpose of hedging, that it will, under a long time, be brought into general use. The most palpable improvements are slow in being adopted. A considerable portion of our country is moreover too much impoverished to admit of the successful rearing of hedges. They belong eminently to a state of cultivation where taste and industry are measurably combined. But if we have worn-out fields, we have also fine districts of country, where their pleasing effects, as well as utility, would be most manifest. What an air of neatness and improvement they would impart to the finely cultivated farms on James river, both above and below Richmond, to those also on the Rappahanock, the Roanoke, and in many other sections of the State that might be designated with equal propriety.—In most of these places, the lands are so valuable that there is now a great deficiency of timber; and, from necessity, they are therefore almost exclusively devoted to grain. Along the lines of canals also, where permanent fences are obliged to be maintained, there would be a great advantage in planting hedges at once. The idea that when fairly established, they will never need removal, would inspire a degree of security which cannot be felt by those persons who are in the habit of patching up decayed fences, and calculating the value of a rail in resisting the depredations of stock.

T. S. P.

Goochland county, Va.

Sweet Apples for Hogs.—It is generally supposed that none but sweet apples are suitable food for swine. This we believe to be erroneous. The nutritious quality of the apple consists in the weight; the heaviest juice contains the most nutritious substance, and the sweet apple does not always contain the heaviest juice, but the juice of sour apples is often as heavy as that of sweet apples. Besides, if hogs are fed exclusively upon sweet apples, the stomach becomes clogged, and the teeth cloyed. It is better that they be mixed—sweet and sour together.—*Western Ag.*

MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 *Morus Multicaulis* trees, which will be ready for sale this fall.

EDWD. P. ROBERTS,
Baltimore, Md.

August 15.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	
CATTLE, on the hoof,	100lbs	6 50	8 00
CORN, yellow	bushel	1 04	1 06
White,	"		102
COTTON, Virginia,	pound	11	
North Carolina,	"		
Upland,	"	10	12
Louisiana—Alabama	"		13½
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 37	1 50
FLOUR&MEAL—Best wh. wh't fam.	barrel.	10 75	11 75
Do. do. baker's.....	"		
SuperHow. st. from stores	"	9 00	9 50
" wagon price,	"		
City Mills, super.....	"	8 25	8 50
" extra	"	8 50	9 00
Susquehanna,	"	9 37	
Rye,	"	5 75	6 00
Kiln-dried Meal, in hhd.	hhd.		
do. in bbls.	bbl.		
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 00	2 50
Tall meadow Oat,	"		2 75
Herds, or red top,	"	75	1 00
HAY, in bulk,	ton.	12 00	18 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 75	7 87
Slaughtered,	"		
HOPS—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	38	40
PEAS, red eye,	bushel.		
Black eye,	"	87	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	4 00	
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	60	65
Susquehanna,	"		none
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"		
" ground leaf,	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 55	1 65
Red, best	"	1 40	1 50
Maryland inferior	"	1 00	1 25
WHISKEY, 1st pf. in bbls.....	gallon.	34	35
" in hhd.....	"		33
" wagon price,	"		30
WAGON FREIGHT, to Pittsburgh,	100 lbs	1 25	
To Wheeling,	"	1 50	
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.		13½
Shoulders, do.....	"		11
Middlings, do.....	"	do	do
Assorted, country,	"	10	10½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"		
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.		
CHOP RYE,	"		1 75
EGGS,	dozen.	18	
Fish, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, —, —, —, No. 2	"	9 00	10 00
No. 3,	"	4 00	4 50
Cod, salted,	cwt.	3 00	3 25
LARD,	bound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	par
Branch at Baltimore,	do
Other Branches,	do
	MARYLAND.
Banks in Baltimore,	par
Hagerstown,	¾
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton, ... 1	do
Salisbury, 2 per ct. dis.	do
Cumberland,	3
Millington,	do
	DISTRICT.
Washington,	do
Georgetown, } Banks, ¾ p.c.	do
Alexandria,	do
	PENNSYLVANIA.
Philadelphia,	¾
Chambersburg,	1
Gettysburg,	do
Pittsburg,	¾
York,	1
Other Pennsylvania Bks. 4	do
Delaware [under \$5] ... 6	do
Do. [over \$5]	2
Michigan Banks,	10
Canadian do.....	10

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Also, a good RAMAGE PRESS, now in operation; price \$60. Also, a STANDING PRESS, iron bound wooden frame, with a powerful screw; will be sold low.

Apply to SANDS & NELSON, Office of "Farmer & Gardener," jy 25 4t Corner of Charles & Market sts. Baltimore.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Wheat FANS, of various sizes
English Corn Hoes	Mattocks, Picks and Grubbing Hoes
Superior American made Casteele Hoes, with handles	Corn Shellers

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

J. S. EASTMAN.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

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Notice to those wanting Spring Wheat; Dutton corn for roasting ears; an enquiry relative to a species of corn; do. relative to a machine for cutting timber; the Crops; value of hogs the coming fall; the turnip culture; manuring by a process of cowpenning; autumnal ploughing; agriculture acquiring more attention; silk in Maine and in Easton, Md.; the weather and crops in Missouri, &c.; beet sugar; pond mud; rotation of crops; mowing; the wool market; soiling milch cows; spring wheat; crushed corn for fowls; ripening of corn and ploughing of green crops for manure; apples for horses, cattle, hogs and sheep; trial of spring wheat; culture of wheat; a large cabbage; osage orange for hedges; apples for hogs; advertisements; prices currents.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 17.

BALTIMORE, MD. AUGUST 22, 1837.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, AUGUST 22, 1837.

Ourselves—Our subscribers are respectfully reminded that when we purchased the Farmer and Gardener, we bought the debts due the establishment, and thus assumed heavy responsibilities, to meet which we solicit those indebted to it to transmit us by mail the subscriptions respectively due. To each individual the sum due by him is a matter of minor importance, but to us, the aggregate amount due, is of the very first importance. We are fully sensible that the difficulties of the monetary affairs of the country have tended to prevent remittances by some, while the smallness of our claims have been forgotten by others in the multiplicity and pressing nature of their more weighty concerns; and fondly believing that none have purposely withheld our dues, these considerations seem to call upon us to remind our patrons of these facts—that there is nothing which so enspirits the conductors of a public journal as promptness in the settlement of their subscription accounts—and that among the gratifying evidences of approbation there are none more pleasing than those which enable them to be just to those to whom they are indebted.

Pleasant—Next to the consciousness of having deserved it, there is nothing more grateful to a sensitive mind than the evidence that one's labors are properly appreciated, and meet the approbation of those for whose benefit or pleasure they may have been exerted. We have no ambition save that which we deem laudable, but if we were to conceal the fact that we felt proud at the receipt of the subjoined letter, we should depart from that line of candor which it has been our desire through life to maintain. The writer of the subjoined letter is an estimable citizen of Philadelphia, who, on his leaving that city a few months since for his estate in Butler county, Pennsylvania, wrote us word of his intention while absent to endeavor to extend our patronage—the handsome manner in which he has redeemed that promise, lays us under re-

newed obligations of gratitude personally to him, and shall serve to stimulate our exertions in behalf of the cause of Agriculture.

Extract of a letter from a subscriber residing in Philadelphia, now on a visit of business in Butler county, Pennsylvania.

“BUTLER, Penn. Aug. 4, 1837.

Dear Sir—In pursuance of my promise to endeavor to procure some additional subscribers to your instructive and entertaining paper, the Farmer and Gardener, I have now to mention that, having shewn some numbers of the work to the following named gentlemen, they are so well pleased with it that they have requested me to desire that their names may be added to your subscription list, and that the paper may be forwarded to each of them directed to Butler, Pa. Hon. ———, Judge of this district; Hon. ———, late member of Congress; Hon. ———, member of Congress elect; and ———, Esq. resident of this place.

With my best wishes for the success of your undertaking, I am, very respectfully, your obt. servt.

We return our thanks to our valued subscriber and correspondent for the expression of his wishes for the success of our undertaking, and will remark to him, that if each of our subscribers had manifested the same warm and disinterested interest, there would be no doubt of our entire and triumphant success. To many we have had occasion before of acknowledging our indebtedness, and to all we would now observe, that we indulge the hope, that the force of the excellent example, now set them, will urge them forward in the noble struggle, of who shall do us the most good. Strifes of this nature, however others may be deplored, are as generous in their conceptions, as they are beneficent in their effects—while they exalt the character of the actors in them, they render a most acceptable service to those who we trust have hearts capable of being properly impressed with the nature of the obligation imposed, by such flattering testimonials of attentions and regard.

Spring Wheat and Baden Corn—A gentleman in Washington writes thus to his friend in this city.

“I write to inquire how your spring wheat succeeded. I have had a fine crop in Indiana. My son writes that we shall have 30 bushels an acre, and the quality very fine. The land was sward,

ploughed in 1836, and the wheat harrowed in last May or the close of April. I have 200 bushels on 7 acres.

My Baden Corn is doing well. Some stalks have 11 ears on them: many stalks 5, 6 and 7 ears.

Oats also have done exceedingly well on the prairies; varying from 40 to 70 bushels to the acre, per estimate, not being threshed yet.”

The gentleman who favored us with the above extract, in his letter enclosing it, says:

“Mr. B—— (a gentleman in Washington who cultivates it in town lots) has 24 ears of corn on two stalks of Baden seed, as I am informed, not having seen it.”

[These products each beat the yield of this excellent variety of corn with us. We have a few acres in it, and were delighted in passing through it a few days since to find from 3 to 7 ears on a stalk,—the difference, however, so strikingly in favor of the corn alluded to in the letters above, may be easily accounted for, in the great superiority of the soils in which they have been grown—the prairie lands of Indiana, and the highly manured lots in the vicinity of the capitol, being doubtless much better adapted to urge it forward to excessive yield, than that of ours, which is new ground not remarkable for its virgin strength. So far as we are capable of judging, we are of opinion, that the *Baden Corn* is superior to any we have seen grown. Besides its prolific yield of ears, it affords as much if not more, fodder, than any other variety that has as yet come under our observation.]

Dutton Corn—On examining some of our ears of Dutton corn on the 17th instant, we were pleased to find the grain perfectly hard, requiring nothing but a little drying to fit them for grinding—The advantage of growing this variety after a year of scarcity can be duly appreciated by agriculturists. From our experience we are justified in believing that two crops could be grown in the same season in part of Virginia, North and South Carolina, Georgia, and the other southern states.

Niles' Register.—The present proprietor of this excellent work, Col. William Ogden Niles, has announced his intention of removing his establishment to Washington City. To say that we regret it, would not be to convey the feelings which actuate us. We most sincerely regret

the removal of so good a friend from our community—we are pained at the idea of a separation from one whose society has so often afforded us pleasure—whose frank and ingenuous deportment and conversation has been at once the source of instruction and the object of our admiration.—But while we know we shall be, personally, losers by his change of residence, we rejoice in all sincerity at it, because we feel confident that his private interest will be promoted. The “Register” is now a national work,—emphatically, a *national* work, and what location so proper for it as the seat of the national government? There, Col. Niles will enjoy opportunities of possessing himself of public documents, which he could not expect elsewhere—there he will have opportunities of conversing with the distinguished men of our country from all quarters, and of enhancing the value of his journal. The Register has been more than a quarter of a century in existence, and is now acknowledged to be the best record of facts in our country. For twenty-five years it was conducted by Col. Niles’ father, and found favor not only in America, but in Europe, and is very properly deemed essential to the library of every professional or public man, containing, as it does facts, which are alone *accessible* in its pages. It has often been said of it with great truth, that it furnishes, for its time, the best materials for a history of our country of any other work extant.—In almost every department its collection of incidents is as interesting as complete and full, and we are gratified to bear testimony to the impartiality and sagacity that has marked the course of its present conductor. As an assistant to his honored father, its late proprietor and editor, as well as founder, he possessed advantages of rare occurrence, and it is but justice to say that those advantages were not lost upon him, for in assuming the entire management of it, he proved at once that he was a true knight.

Col. Niles will carry with him our best and most ardent wishes for his entire success, and certain we are that, if it proves commensurate with his deservings, he will have cause to rejoice at his translation to the District of Columbia.

CULTURE OF ONIONS.

With some few exceptions, onions are usually raised south of New England, from *sets* grown in the autumn of the previous year, a general impression prevailing that they cannot be matured from seed the same season. This opinion we know from experience to be erroneous, and as such belief has interfered materially with the cultivation of this excellent vegetable, we deem it

our duty to state the result of a small experiment we made the present season, with a view of testing whether onions could or could not be grown from seed the same season.

On a small bed in our garden contiguous to our kitchen, we caused the suds made through the last winter to be thrown. Early the last spring we had the bed dug up and thoroughly pulverized, then spread over it a slight dressing of unleached ashes, which was raked in. We then laid off the bed in drills 12 inches apart, and sowed white onion seed therein, as thinly as the operation could be performed with the hand. As the young onions became fit to use, we thinned out the patch, leaving those that remained about 4 inches apart. On the 14th of this month, the onions were gathered, and we had the pleasure of finding that they were fully as large as those which had been raised from sets of last fall’s growth. One which we measured was $9\frac{3}{4}$ inches in circumference, a size large enough for all culinary purposes.

We will venture upon the assertion, that if suitable soil be selected, and the ground be well manured, that onions can not only be raised, but *matured* from seed sown in March. All that is requisite to insure a good crop is to plant at the proper distance in the rows, thin out early, keep the ground well stirred around the roots, and the bed clean from weeds. With proper care we believe that 100 bushels of onions may be raised on an acre, which at the price they bring in the market would prove a crop sufficiently lucrative to satisfy any but a mind inordinately imbued with avarice.

We acknowledge with thanks the receipt of the sample of *Spring wheat*, alluded to by the author of the subjoined communication, nor are we less grateful to him for his kind and prompt attention to the request we published a few weeks since, that persons having knowledge of any experiments on the culture of this wheat would favor us with notices thereof. It is alone by submitting it to the test of actual cultivation, that the value of every new variety of grain, or vegetable, can be known, and hence the propriety of farmers making statements through the public press of all such trials as they may make.

[For the Farmer and Gardener.]

Mr. Editor—I noticed in your interesting work, a few weeks ago, a request that persons, having a knowledge of experiments being made in the cultivation of the spring wheat, would communicate to you the result. I have observed also, that the repeated failures of the winter crop, have excited among agriculturists in this section of the country much interest, to ascertain whether it is prac-

ticable to introduce the spring wheat, and to cultivate it successfully. I am therefore induced to give you a short and hasty account of an experiment, made by a friend of mine, hoping that it may serve to gratify your own curiosity, and that it may be useful to farmers who are directing their attention to this subject. James Renshaw, Esq., of Adams county, Pa., a gentleman of experience and judgment, is the person who has made the experiment, and he states, after carefully attending to the progress of his crop from the time it first vegetated till it matured, that he is convinced that this wheat may be successfully cultivated, and that our soil and climate are well adapted to its growth. His seed was originally imported from Russia, and proved to be a mixture of the white smooth, the white bearded and the red bearded. It was not apparent, however, that either kind grew better than the others. Before being sown, it was soaked twelve hours in strong brine, and was afterwards rolled in sieved ashes. Slacked lime would have been preferred to the ashes, but could not be procured. The quantity sown to the acre was two bushels, and that upon corn ground, which had been prepared by carefully removing the stalks, and manuring. It is not thought, however, that corn ground is at all preferable to any other, but in the language of the gentleman himself, “those who prepared their ground best generally, may expect the best product.” No precise time can be recommended for sowing the seed, on account of the variation in the seasons. Though it might be observed, that it would be best to put it in as early as the person is convinced the season will admit. Upon this point every farmer must be governed by his judgment. In this instance the seed was sown the eighth day of April, and the crop was cut the first of August; so that, it was less than four months in springing up and maturing. It presented, about three weeks before it was ripe, when the writer saw it, a most luxuriant appearance. The stalks stood thick upon the ground, and the heads were large and well filled. It was also free, and I am told remained so, from that pest, the rust, which has been ruinous the present season to many crops. I was furnished with a sample of the grain, and also a bunch of heads, which I forward to you. You will perceive the first to be, though not extraordinary for its plumpness and weight, a very fair article, and the latter large and well filled.

A SUBSCRIBER.

Westminster, Md. August 8, 1837.

INDIAN CORN.

The New Haven Herald says:—“We have passed our observation upon the markets of N. York and Philadelphia, within a few days. Among other remarkable productions, we noticed several stalks of Indian Corn, each of which had seven separate ears upon it, and one had eight. This was of a peculiar species, the seed having been procured by Mr. H. L. Ellsworth, while Indian Commissioner at the “Far West.”

We suspect the editor of the New Haven Herald is in error in stating that “this was of a peculiar species, the seed having been procured by Mr. H. L. Ellsworth while Indian Commissioner at the ‘Far West.’” Our own opinion is, that it

is the *Baden corn*, and instead of being procured at the "Far West," was procured by Mr. Ellsworth of that excellent old pattern of Maryland Farmers, Thomas N. Baden, of Prince George's county, in this state. For the introduction of it to the notice of the agriculturists of our country, Mr. Ellsworth deserves great credit, and for one we tender to him our most grateful homage. It was through him we were induced to cultivate it, and judging from present appearances, we are of opinion that there is no other variety of corn that can compare with it, either in yield of grain or fodder.

SPRING WHEAT.

We find the following interesting letter marked for our insertion in the Lexington (Va.) Gazette of the 4th instant, and while we publish it with pleasure, we commend it to the perusal of our agricultural readers with the more readiness, as it comes from a practical farmer of intelligence.

And we hope that the other farmers in the neighborhood of the writer who have tried the same crop, will avail themselves of the opportunity afforded by the wish expressed by him, and favor the public with their experience and views upon the value of this variety of wheat, as whether the result of their experience be favorable or unfavorable, much good will arise to the farming interests. If favorable, the culture may be advantageously extended; if otherwise, the sooner those reasons which may have operated to produce such opinion are known the better, as it will enable those who have not made the experiment to profit by the experiments of those who have.

SPRING WHEAT.

We ask the attention of the farmers of the county to the following valuable communication from one of our most intelligent and successful agriculturists. They will no doubt concur with us in the opinion, that he richly deserves the thanks of the community for his efforts to extend the cultivation of this valuable grain, (Spring Wheat), which will secure an almost certain crop of the great staple of the Valley. We expect further information upon the subject from other intelligent farmers of this vicinity. We hope some of them will grind a small parcel of the Wheat, so as to test the quality of the flour. The remainder they will no doubt distribute liberally among their brethren of the plough.

August 1st, 1837.

C. C. BALDWIN, Esq.

Dear Sir:—Your note of the 27th ult. requesting information in relation to my success in the cultivation of the Spring Wheat, was not received for several days, and my engagements since, have prevented an earlier answer to the several queries propounded. I will now endeavor to answer them, in the order of your note, as well as I can, from an experiment on three small lots, and for a single season.—The wheat is of the bearded fa-

mily, with a beautiful, clear, yellow straw, the meshes, I think, placed closer on the head than is usual in that variety; consequently, it gives a better yield from the straw, than a careless observer would suppose, from the length of the head. The grain may be called red, and of medium size, resembling very much the bearded Winter Wheat, common in our county.

In regard to soil, preparation, and time of sowing, I would remark, that in the experiments I have made, I sowed at three times, and on different soils; first, on the last week of February, on a clover fallow, ploughed in the same month; then on a stiff clay, (without clover) about the 15th of March,—ground ploughed near the time of the first lot;—and last a lot of corn land, of medium quality, ploughed the last week in March, and sowed as soon as ploughed. The corn lot gave much the best yield and best grain—standing well and free from injury of any kind until ripe.—The two first lots gave too luxuriant a growth—and the wheat fell before it was made—consequently the grain was somewhat shrivelled, but the straw was clean and free from rust. The quantity sown was about $1\frac{1}{2}$ bushels per acre, which I have no doubt was one-third too much, and the yield near 15 for one, on all the lots together, but considerably more on the corn land. I cut the Spring Wheat, the day I finished cutting the winter grain, and my belief is, that in ordinary seasons, it will ripen in about the same time. As to its yield in flour, I cannot speak, not having had any ground, but judge from the appearance of the grain, that it will not make as fair flour, as any of the white varieties of Wheat, but that it will yield flour, in quantity and quality, equal to the bearded Winter Wheat, or any of the red wheat common amongst us. In answer to the query, "whether the grain can be advantageously substituted, in whole or in part, for the common winter wheat,"—I have no hesitation in saying, that it should not be substituted in whole, but that I am of opinion that it may be advantageously substituted in part. I think that corn land is the best preparation, and that all, or so much of it, as cannot be well prepared, and sowed in good time with winter Wheat, should be reserved for this crop. Every farmer will at once see how much such an arrangement would relieve him in his fall labours, and with what ease and how handsomely he could prepare his corn land for a spring crop, by removing the stalks off the land at his leisure in the winter to the barnyard.

Your last query is, whether I have seed to dispose of. I have raised more than I wish to sow—but many persons have made application for seed, and until they call and receive what has been promised, I am unable to say how much I will have to spare.

It is my desire to dispose of it in small parcels, and to spread it as widely as possible, believing as I do, that it will be a valuable crop, particularly in situations, and on land subject to injury from the action of the frost,—I believe I have answered all your queries, in a hasty and imperfect way to be sure; but I hope, that as other farmers in the neighborhood have tried the same crop, they will, through your paper, favour us with their experience and views, and thus any omission of mine will be supplied, or error into which I may have fallen, corrected.

Very Respectfully,
A. T. BARCLAY.

P. S. I ought to have stated that the seed procured from the North, had in it a considerable quantity of oats, and that I was not so particular as some others, who sowed less, in picking them out; consequently, there is still mixed with my wheat, some oats, but not so much as came in the seed.

A. T. B.

[For the Farmer and Gardener.]

YORK, Pa., August 10, 1837.

E. P. Roberts, Esq.—Dear Sir,—You express a wish in your valuable paper of the 25th ult., to know the result of the culture of Spring Wheat in different parts of the country. Thinking that perhaps the experiment in this county might be of some advantage to the public, we give it so far as ascertained, with pleasure. Early last fall we ordered from different parts of New York about 100 bushels of the Italian, but succeeded in getting only 63 bushels. This, with the exception of about ten bushels, (which we sowed ourselves) was sold in small quantities to the farmers in this county, and we are gratified to say, it has succeeded far beyond the expectation of the most sanguine. It is generally better than the winter wheat. We find too, that it does not require so strong a soil. We have a lot of 4 acres, a thin chesnut soil, improved by lime and manure, which we think will give us 30 bushels to the acre. All that we have heard of is free from mildew and rust, while a larger portion of the winter wheat in this county was injured by it.

The demand already is considerable for seed.

Respectfully,

Yours, &c.,

P. A. & S. SMALL.

Spring Wheat.—The newspapers are beginning to discuss the propriety of our farmers turning their attention to the sowing of Spring Wheat. The wheat which is called *white Tuscan*, having been imported some years since from Tuscany, in Italy. Our farmers would do well to try it. It has been tried with eminent success in some parts of Pennsylvania and Maryland. Seed wheat could be procured in Baltimore if desired.

Danville (Va.) Reporter.

Spring wheat.—A number of gentlemen, residing in Augusta county, last spring procured and sowed small quantities of the Italian or Spring Wheat. The Staunton Spectator says that the experiment has been highly satisfactory and successful in every instance. "The Senior Editor [of the Spectator] got a bushel, which, after cleansing it of the oats which was mixed with it, left about seven-eighths. This was sown about the middle of March, on a hill side, from which two crops had been taken without manuring, and the yield is estimated by judges at from fifteen to twenty bushels; there being something over thirty dozen. It is a bearded grain, the heads large and well filled, and the straw of a beautiful bright yellow. We have heard of one gentleman whose yield from a peck is fourteen dozen. Benjamin Crawford, Esq., who also succeeded in procuring about a bushel and a half of the seed from New York, we understand estimates his yield at about twenty-five bushels."—Winchester, Va. Rep. August 9.

MR. WHITAKER'S IMPROVED SHORT-HORNED DURHAMS.

Our readers are referred to the advertisement of *M. Thomas & Son*, of the sale of Mr. Whitaker's recently imported short-horned Durham Cattle, consisting of 33 head. The sale will take place at *Powelton*, near *Philadelphia*, on Tuesday, the 12th of September proximo.

Having been favored with a copy of the pedigrees of the animals to be sold, we publish them *gratuitously* for the benefit of our subscribers, to many of whom we know they will be acceptable. We have no personal knowledge of this importation, but from the high reputation of Mr. Whitaker as a scientific breeder, we have no doubt that the animals are superior, and well worthy of the attention of gentlemen farmers in this country, who may wish to obtain this breed. It will be seen that the pedigrees are unexceptionable, and trace to some of the best of this most popular stock as recorded in the British herd book.

"These cattle were shipped at the suggestion of Col. John Hare Powel, when he examined Mr. Whitaker's stock in England in September last."

PEDIGREES.

COWS, &c.—Lot 1. *Ruth*, red and white, calved in 1831, got by Burley, 1766, dam Young Flower, by Memnon, 2295, g. d. Fancy by Agamemnon, 9, gr. gr. g. d. Madam, by Marshal Beresford, 415, (the Marshal's sister Lilly was sold for 410 guineas,) gr. gr. gr. g. d. Tuberoze, by the Lane Bull, 559, gr. gr. gr. g. d. Old Moss Rose, by Suwarrow, 636. Bullied the 23d Feb. by Scrip. 2604.

2. *Adelaide*, roan, calved in 1831, got by Albert, 727, d. Anna, by Pilot, 496, (270 guineas,) Anna got premiums at Manchester and several other shows,) g. d. Ariadne, by Albion, 13, gr. g. d. Brighteyes, by the Lane Bull, 359, gr. gr. g. d. by Shipton, 587, gr. gr. gr. g. d. by a Son of Suwarrow, 636, gr. gr. gr. g. d. by a Son of the Twin-brother to Ben, 660, gr. gr. gr. g. d. by Twin-brother to Ben, 660. Bullied the 22d Dec. by Scrip. 2604.

3. *Minna* the 2d, roan, calved Feb. 10, 1832, got by Mr. Whitaker's Edmund, 1954, a son of Frederick, 1060, (Edmund received a premium at Odley,) d. Marmalade, by Dishley Ketton, 982, g. d. by Comus, 1862, gr. g. d. by Reform, 1361, gr. gr. g. d. by a son of Eclipse, gr. gr. gr. g. d. by Mr. Booth's son of the Twin-brother to Ben, 88. Bullied 7th Jan. by Colossus.

4. *Lucilla*, roan, calved May 27th, 1832, got by Mr. Whitaker's Edmund, 1954, a son of Frederick, 1060, (Edmund received a premium at Odley,) d. Laurustina, by Grazier, 1085, g. d. Miss Cropper, by Rob Roy, 557, gr. g. d. by Barmpton, 54, gr. gr. g. d. by Expectation, 247, gr. gr. gr. g. d. by Mr. Ostler's Brindled Bull, 1298. Bullied Feb. 1st, by Scrip. 2604.

5. *Empress*, roan, calved in 1832, got by Imperial, 2151, d. by Favorite, 1030, g. d. by Snowball, 2648, gr. g. d. by Wellington, 678, gr. gr. g. d. by Young Sir Dimple, 971, (Sir Dimple's sister

Lily was sold for 410 guineas,) gr. gr. gr. g. d. by Layton, 2190, a son of Mr. Charge's Grey Bull, 872—Empress calved a cow calf on the 10th of May last.

6. *Brighteyes*, roan, calved Jan. 15th, 1833, got by Stapleton, 2698, d. by Stephen, 1456, g. d. Jane by Mark, 2266, gr. g. d. by Mr. Hutchinson's red Bull Rufus, 570. Bullied Dec. 23d, by Colossus.

7. *Beauty*, red and white, calved Sept. 25, 1833, got by Mr. Whitaker's De Veaux, 1916, d. Bell by Mr. Whitaker's Bertram, 1716, g. d. Belvidera, by Mr. Whitaker's Frederick, 1060, gr. g. d. Brighteyes, by Hermit, 805, gr. gr. g. d. Barmpton, by Favorite, 252, gr. gr. gr. g. d. Brighteyes, by Favorite, 252, gr. gr. gr. gr. g. d. Old Brighteyes, by Favourite, 252, gr. gr. gr. gr. g. d. by Favorite, 252, gr. gr. gr. gr. g. d. by Punch, 531, gr. gr. gr. gr. g. d. by Hubback, 319, (Hubback's grandsire was out of Barforth, a cow that gave 36 quarts of milk per day, and from which was produced 16 lbs. of butter, of 24 ounces each, within the week, for two successive weeks,) gr. gr. gr. gr. g. d. by Snowdon's bull, 612, gr. gr. gr. gr. g. d. by James Masterman's bull, 422, gr. gr. gr. gr. g. d. by Mr. Waistell's bull, 669. Bullied 12th March by Berryman, see Omissions.

8. *Vermilion*, red, calved Dec. 24th, 1833, got by Mr. Whitaker's Norfolk, 2377, d. Venus, by Sir Walter, 2638, g. d. Vestris, by Cato, 1794, gr. g. d. Verbina, by a son of Wellington, 679, gr. gr. g. d. a favorite cow, bred by the late Mr. Robertson, of Ladykirk, whose stock were descended from the Messrs. Collings. Bullied April 15, by Berryman, see Omissions.

9. *Nonsuch*, roan, calved March 19th, 1834, got by Reformer, 2512, (half brother to Colossus) d. Red Lady, by a son of Warlabby, 672, g. d. Lady, by Young Comet, 905, gr. g. d. Lady, by a son of Windsor, 998, (Windsor's sister Mary was sold for 300 guineas,) gr. gr. g. d. Lady, by Layton, a son of Mr. Charge's Grey Bull, 872, gr. gr. g. d. Lady, by Eclipse, 1948, gr. gr. gr. g. d. Lady, descended direct from the Studley White Bull, 627, for the last sixty years.

10. *Media*, roan, calved in April, 1834, got by Thorp, 2757, d. by Wonder, g. d. by Wellington, 678, gr. g. d. by Mars, 412, gr. gr. g. d. by Ladrone, 358, gr. gr. gr. g. d. by Mr. Luke Seymour's Sweepstakes. Media calved a bull calf on the 9th of April last.

11. *Ruby*, red, calved in June, 1834, got by William, 2640, d. by Wellington, 2824, g. d. by Blaize, 75, gr. g. d. by Lane Bull, 358, gr. gr. g. d. by Bolingbroke, 86.

12. *Mauflower*, roan, calved in August, 1834, got by Sir Walter, 2639, d. Manuella, by Marquis, 2270, g. d. by Leopold, 2199, gr. g. d. by Dundas, 1943, gr. gr. g. d. by Cupid, 177, gr. gr. gr. g. d. by Simon, 590, gr. gr. gr. g. d. by Punch, 531, gr. gr. gr. g. d. by Bolingbroke, 86. Bullied 21st Dec. by Baronet, 1686.

13. *Profitable*, roan, calved in November, 1834, got by Mr. Flint's Young Ebor, d. Useful by Garton, 2052, a grandson of Mr. Whitaker's Frederick, 1060, g. d. by Baron, 59, a son of Harold, 291, (201 guineas,) gr. g. d. by Bracken, 91, gr. gr. g. d. by Ketton, 346. Bullied April 1st, by Primo.

14. *Clarkville*, roan, calved Feb. 7th, 1835, got by Lottery, d. by Wonder, g. d. by Wellington,

ton, 678, gr. g. d. by Mars, 412, gr. gr. g. d. by Ladrone, 353, gr. gr. gr. g. d. by Mr. Luke Seymour's Sweepstakes. Bullied Dec. 19th, by Acmon, 1606.

15. *Virginia*, roan, calved in March, 1835, got by Lottery, d. by Young Rockingham, 2547, g. d. by Wonder, gr. g. d. by Wellington, 678, gr. gr. g. d. by Mars, 412, gr. gr. gr. g. d. by Ladrone, 353, gr. gr. gr. gr. g. d. by Mr. Luke Seymour's Sweepstakes. Bullied Feb. 3d, by Acmon, 1606.

16. *Woodbine*, roan, calved Oct. 4th, 1835, got by Mr. Robson's William, d. Woodville, by a bull of Mr. Robson's, and she was descended from Mr. Booth's stock for the last 21 years. Mr. Robson's William was got by Studley Royal, d. by a son of Pilot, 496, g. d. by Young Albion, 15, gr. g. d. by Apollo, 36. Studley Royal by a bull of Mr. Morton's of Lowfield's, d. by Memnon, 1221, g. d. (received a premium at Odley,) by Peacock's old roan bull, by Wellington, gr. g. d. Mr. Milthorpe's cow, and she got two premiums at Odley.

17. *Belicia*, roan, calved in Feb. 1836, got by Algernon, 1631, d. Beatrice, by Sir Charles, 1440, g. d. Bobtail, by Kirkharle, 2178, gr. g. d. by Baronet, 62, (Baronet was sold for 350 guineas,) gr. gr. g. d. the Newton Hall cow, by Duke, 226.

BULLS.—Lot 18. *Colossus*, roan, calved in February, 1834; got by Ambo, 1636, d. Beauty, by Imperial, 2151, g. d. Beauty, by Favourite, 1030, gr. g. d. Beauty, by young Dimple, 971, gr. gr. g. d. Daisy, by Wellington, 678, gr. gr. gr. g. d. Beauty, by Duke, alias Young Comet, 905, gr. gr. gr. g. d. by Layton, a son of Mr. Charge's Grey Bull, 872, gr. gr. gr. g. d. by Eclipse, a Son of Mr. James Brown's White Bull, 98.

19. *Nimrod*, red, calved January 12th, 1835; got by Reformer, 2512, d. Cherry, by Imperial, 2151, g. d. by Harrison's Son of Windor, 698, (Windsor's sister Mary was sold for 300 guineas) gr. g. d. Lady, by Young Dimple, 971, gr. gr. g. d. Cherry, by Favourite, gr. gr. gr. g. d. Old Cherry, by Goldfinder, 1075.

20. *Hector*, red and white, calved May 20th, 1835; got by Charles, 1815, d. by Driver, 1928, g. d. by son of Dash, 2668, gr. g. d. by Jupiter, 342, gr. gr. g. d. by Pope, 514, gr. gr. gr. g. d. by Chilton, 136—Richard, 1376,—Rufus, 570,—Charles, 127,—St. John, 572,—Dash, 191,—White Bull, 421, were all used by the breeder of Hector.

21. *Sir Robert*, red, calved May 25th, 1835; got by Young Magog, 2247, d. Rosebud, by Richard, 1376, g. d. by Fitz Remus, 2025, gr. g. d. by Whitworth, 695, gr. gr. g. d. by Charles, 127—Colonel Mellish and Mr. Champion paid 450 guineas for the use of Charles for two years.

22. *Melbourne*, red roan, calved in September 1835; got by Monitor, 2331, d. Violet, by Memnon, 2296, g. d. Red Rose, by Snowdrop, 2653, gr. g. d. by Barmpton, 1677, gr. gr. g. d. by Waverly, 2819—Melbourne obtained a premium at Durham in 1837, and his dam received one at the same place in 1836.

23. *Primo*, roan, calved January 16th, 1836; got by Colossus, 1847, d. Spinster, by Meteor 2nd, 2305, g. d. Elvira, by Baronet, 774, gr. g. d. Emerald, by Meteor, 432, (270 guineas,) gr. gr. g. d. Lavinia, by Comet, 155, (100 guineas)—(the late Colonel Mellish refused 250 guineas for Lavinia when a few months old. She got three premiums,)—gr. gr. gr. g. d. Lily, by Mr. Collings'

son of Favourite, 352, gr. gr. gr. g. d. by Mr. Collings' son of Favourite, 252 gr. gr. gr. g. d. by a Bull of Mr. Chapman's of Dinsdale, gr. gr. gr. gr. g. d. by Mr. Grimstons' Bull, 282.

24. *Maxwell*, roan, calved February 7th, 1836; got by Kilnshaw, 2175, a son of Mr. Whitaker's Charles, 878, d. Jasmine, by Mr. Whitaker's Edmund, 1954, a son of Frederick, 1060, g. d. by Comus, 1862, gr. g. d. a good roaned Cow from Darlington.

25. *Llewelyn*, roan, calved May 13th, 1836; got by Maggot, 2238, bred by the Reverend H. Berry, d. Gay, by Mr. Whitaker's Norfolk, 2377, g. d. Grizel, by Young Warlaby, 2812, gr. g. d. by a son of Sir Dimple, 594,—(Sir Dimple's sister Lily, was sold at Mr. C. Collings' sale for 410 guineas.)—gr. gr. g. d. by Mr. John Woodhouse's roan Bull Layton, a son of Mr. Charge's Grey Bull, 872.

26. *Colostr*, white, calved May 20th, 1836; got by Colossus, 1847, d. Miss Fairfax, (half sister to Young Phyllis, sold to Mr. Harness, Ohio) by Mr. Whitaker's Fairfax, 1023, a son of Frederick, 1060, g. d. Lily, by Young Warlaby, 2812, gr. g. d. by Young Dimple, 971, a son of Sir Dimple, 594,—(Sir Dimple's sister Lily, was sold at Mr. C. Collings, sale for 410 guineas.)—gr. gr. g. d. by Snowball, 2648, gr. gr. g. d. by Layton, a son of Mr. Charge's Grey Bull, 872.

27. *Miser*, white, calved May 25th, 1836; got by Goldfinder, 2066, d. Paulina, by a son of Matchem, 2678, g. d. by Falstaff, 1993, gr. g. d. by Richard, 1376, gr. gr. g. d. by Jupiter, 342, &c. &c.—Goldfinder was got by Charles, 1815, d. by Driver, 1925, g. d. by a son of Dash, 191, gr. g. d. by Richard, 1376, gr. gr. g. d. by Rufus, 570, gr. gr. gr. g. d. by Pope, 514,—Charles, 127,—Chilton, 136, Dash, 191,—St. John, 572,—and the White Bull, 421, were all used by the breeder of Goldfinder,—Paulina, the dam of Miser, gave 16 quarts of milk twice a-day.

28. *Brutus*, roan, calved in June, 1836; got by Holywell, 2132, d. Buxom, by Sir Walter, 1459, a son of Frederick, 1060, g. d. Empress, by Herod, 308, a son of Harold, 291, (Harold, 201 guineas) gr. g. d. Strawberry, by Count, 170, (a son of young Countess, sold at Mr. C. Colling's Sale for 206 guineas) gr. gr. g. d. Venus, by Badsworth, 47, (Badsworth was half brother to Patriot —Patriot was sold for 500 guineas) gr. gr. g. d. by Coate's son of the Twin-brother to Ben, 660, gr. gr. gr. gr. g. d. bred by the late Sir George Strickland.

29. *Delight*, red, calved June 8th, 1836, got by Barden, 1674, d. Venus, by Young Colling, 1843 g. d. Lingeropper, by Remus, 550, a son of Comet, (1000 guineas,) gr. g. d. Pink, by Sedbury, 1424, gr. gr. gr. d. Beauty, by Hollings, 2131, gr. gr. gr. g. d. Lingeropper, by Partner, 2409, gr. gr. gr. gr. g. d. by Mr. Hutton's Bull of Marske, gr. gr. gr. gr. g. d. by Marske, 418, gr. gr. gr. gr. g. d. g. d. bought of Mr. R. Alcock, who was the owner of the Sire of Mr. C. Collings' celebrated Cow Favorite, or Lady Maynard.

30. *Prince of Wales*, roan, calved July 4th, 1836, got by Maggot, 2238, bred by the Reverend Henry Berry, d. Quinee, bred by Mr. Whitaker, by Second-Hubback, 1423, g. d. Queen Oak, bred by Mr. Whitaker, by Mr. Whitaker's Edward, 1092, gr. g. d. Prettyface, bred by Mr. Whitaker,

by Frederick, 1060, (a Son of Comet, 1000 guineas,) gr. gr. g. d. Pretty Lass, by Harold, 291, (201 guineas,) gr. gr. gr. g. d. Prettymaid, by Duke, 225, gr. gr. gr. g. d. by Mr. Charge's Grey Bull, 872, gr. gr. gr. gr. g. d. direct to the Studley White Bull, 627.

31. *Lord Fairfax*, white, calved in August, 1836; got by Elector, 1963, a Son of Mr. Whitaker's Edmund, 1954, d. Daisy, by Mr. Whitaker's Fairfax, 1023, g. d. Lucy, by Warlaby, 672, gr. g. d. by Lord Grantham's Snowball, 2648.

32. *Bruce*, yellow red, calved Sept. 14, 1836, got by Mr. Whitaker's Colossus, 1847, d. Lady Mary, by Lord Spencer's Mercury, 2301, g. d. Laurustina, by Grazier, 1085, gr. g. d. Miss Cropper, by Rob Roy, 557, gr. gr. g. d. by Barmpton, 54, gr. gr. gr. g. d. by Expectation, 247, gr. gr. gr. g. d. by Mr. Osler's Brindled Bull, 1298.

33. *Celebrity*, roan, calved 17th March, 1834, by Hubback 2142, a son of Mr. Whitaker's Fairfax, 1023, D. Chilton by Don Juan, 1023, g. d. by Lindrick 1170, gr. g. d. by Sir Alexander, 591, g. g. d. by North Star, 459, *Celebrity*, calved a quey calf on the 30th of May last.

For pedigrees of bulls, without numbers, see Omissions, within 3d vol. of Coates' herd book—The 2d and 3d vols. of Coates' herd book to be had at the time of sale.

[For the Farmer and Gardener.]

MANURING BY A SYSTEM OF COW-PENNING.

[Continued.]

Mr. Roberts—There is no other subject in agricultural improvement, on which more valuable matter has been given to the public, than that of *fabricating, preserving, and applying manures*.—Connected with all the plans, so ingenious, and excellent, given to the public, it must however be acknowledged, that there is a vast deal of *transportation*, and consequently much *time and labor* consumed, and evidently, much *force* absolutely necessary to carry on the different systems—*excellent* when that force is to be had.

To diminish this *time, labor*, and necessity of considerable *force* being employed, or in other words, many hands, which by the bye, thousands of industrious men cannot command, was my great object, for I happened to be one of those that had it not. To fall on a plan then, combining all the advantages of the different plans, and at the same time lessen by the *manner of conducting the operation*, of making and applying manure, the consumption of *time, labor*, and *force*, I now kept steadily in view. I selected a piece of level land, or nearly so, of twenty acres, being part of an "old clearing," that had been "put to death" by a Goth, who had been engaged in the work several years, applying each year a crop of corn, without peas. The deadened trees which had been originally very heavy timber, still standing thick upon the land, my Goth having a "natural" aversion to heavy timber, and who was often heard loudly to swear, that *mauls, wedges*, and seven-pound patent axes were most foolish and abominable inventions, that we could make out well without; *fire* doing the business better, and as for rails, good poles were infinitely more *convenient*, and which, by permitting briars to grow up along with them, was "ten times more *impenetrable and durable*." After my crop was

laid by, I commenced, and cut down every stick of timber, saving the *prime*, for rails, posts, &c.: the balance was cut at 12 feet length. Adjacent, I found a large ledge of lime-stone rock, with much on the surface of the ground. This rock I had gathered, and hauled in carts, (*fitted for the purpose*), to the ground, and in piling up my wood to burn off, laid alternate stratas of lime-stone rock, building up each pile sufficiently high, to lay on the rock with convenience. With those heaps, I had the field literally covered, and I do not suppose, that any field ever received a fairer *liming or ashing*.

For the purpose of preparing this field for the full operation of my theory, I gave a crop of corn and peas, after the liming. In tending those crops, I mixed the *lime*, and *ashes*, and *soil* perfectly. After removing the pea crop, I commenced my "cow-penning" system on the land. I picked the peas early as possible. To be fairly understood, I deemed this previous *cultivation essential*, as it prepared the land to absorb the *urine* of the different animals put on it, as well as all other *liquid matter* that might be deposited.

My stock amounted to one hundred head of different *cattle, horses and mules*; about two hundred head of *hogs*, and one hundred head of *sheep and goats*.

In the first place I procured, while cutting down my timber, a set of *rails, twenty feet in length*, sufficient to enclose *two acres*, dividing this lot by a cross fence, precisely. In consequence of selecting chesnut, and the heart of poplar, they are *light and durable*. For each pannel I had one *flat* heart of whiteoak rail, requiring *two* hands to put it on, also two chesnut rails, *heavy*, to lock with. The rails are *readily* moved about by a stout person. Two *portable* gates fixed on, and in a frame, also readily movable, which owing to their construction, stand all together on the *top of the ground*, constituted my whole pen establishment, excepting the four moveable racks, made of durable wood, and fixed on four wheels, each of the wheels being cut from an old seasoned poplar. On the *gates*, and the *racks*, *hot pitch* was liberally bestowed once a year, with a little spanish brown mixed in it. At each side of the gate frames, holes of two inches, at proper distances, received the one end of the rails, the end being fitted for the purpose. In putting up my pen, I first fixed my gate to the place required, working from it, on each side, previously stepping off the ground—say one acre.

I commenced on one of the lots, by penning in it nightly, and *part* of the day, my *sheep and goats* for *one week*. The next week I move them into the *second*, adjoining pen, replacing them in the first, by penning in it *every kind of stock* I have remaining. This operation is however confined to *dry* weather. *Rainy* nights and *weather*, they are found under sheds at my *permanent dung-steads*, near my barn, stables, &c. Preparatory to putting in the lots, my *stock*, I have the surface covered with *leaves*, effectually. For this I am completely provided with the proper low wheel carts, oxen baskets, &c. The *leafing* day there is a "*levy en masse*" made, being a business like silk making, at which every thing can "take a hand." *Saturday* is always this day, unless as our good auctioneer says, "if *rainy*, the next fair day."—After the leaves are deposited they are immediate-

ly covered with weeds, if the season of the year gives them. The weeds keep the first in place. As the proportion of woodland to cleared soil is almost always a fair majority, on the side of the timber land, there is a certain unfailing supply of leaves—not so with weeds. In a well managed plantation they become scarce, at which time, I resort to the pure pine woods with a large waggon, and get pine straw—for stiff land a superior resource. During the two weeks, the tumbling of sand, clay, or mire, as the case may be, is not omitted, and if need be, a little hiring is resorted to rather than omit this part of the system, as the wages are viewed as money put out at high interest. The sand, clay, or mud, as the case may be, becomes perfectly incorporated with it. Every Saturday a pen is moved, and laid up, and here is what I conceive the “jet of the action.” On Saturday at break of day, by previous appointment, (every one knowing before hand the part that is assigned, and no excuse admitted for not being ready,) the horn blows. The four stoutest men go to moving the PEN, for only one is moved weekly, viz: the new pen to be made for the sheep and goats. It will be seen by laying it down on paper, that the pen to be moved, has but three sides to move, and one side merely to shift, as the new pen will be attached to one of the sides of the old one, nearest. This is the work of the first hour, never exceeding.

As soon as the pen is moved, and ready for the cattle at night, the same stout hands with each a broad, and strong, and sharp hoe, commences the drawing up the contents of the old pen in hillocks. Without any loss of time in marking off, they stand just so far from each other, that their hoes (when they stand where they intend the hillock to be made,) will touch each man, drawing first all the manure, clay, sand, mud, weeds, leaves, &c., around him, up to a hill.—He then commences “de nova,” and draws the earth up on top of the first, so as to cover the manure completely, and to the depth of one foot at least. In a short time the whole lot of ground resembles a piece of meadow, well set with “hay cocks”—and the work now stands, after being well patted with the back of the hoe, until planting time—or this last is done with a broad wooden paddle made for the purpose, leaving them smooth and well formed, to throw off the rain.

[From the Horticultural Register.]

ON THE CULTURE OF THE ONION.

By MR. TOWERS.

Season of planting—In February or very early in March, a number of small onions of the variety called Spanish or Reading, should be collected, the bulbs not to exceed an inch and a half in diameter; those of one inch will do very well, but they ought to be round, flattish, perfectly formed, and not in a growing state. It must be remembered that each of the onions should produce two, three, or four new ones, and the calculation might be founded upon this probable return. The upper soil of the bed, if it be dry, should be sprinkled, and then beaten with the flat side of a spade to a firm and level surface; the angles of the squares to be nine inches apart. Some persons might prefer to stretch the line, and to plant row after row, the onions to stand in quincunx or alternate order; but whatever be the

mode adopted, the surface should not be broken up, and an onion if to be placed on the soil, at every angle of the squares, or at an equal distance, along the line, and firmly pressed down till it be half immersed. Care must be taken also to let the root be fixed straight, so as to send its fibres perpendicularly downwards; the growth of the plant will then from the first be quite upright, and the bulb will be fixed firmly in its place; whereas, if the bulb lie on one side, it is very liable to be displaced. Worms are troublesome visitors on these occasions; therefore, soot, air-slacked lime or ashes should be dusted freely over the surface: the operator must also be on the alert to refix any bulb which may be disturbed.

If the weather be early dry and parching in March, water may be safely given by making holes, sloping diagonally, from the centre of the intervals towards the lines of bulbs, but to at least four inches below them, and in these, water may be freely poured. In frosty weather, of course, nothing of the kind will be attempted, but in dry warm seasons, too much water cannot be given to the under strata; the surface soil, on the contrary, should be as dry as possible.

Under favorable circumstances, growth will be rapidly established, and the gardener will have to observe many interesting and beautiful phenomena. Leaves will at first be developed, but these are not now the organs of nutrition to the parent bulb, from the coated layers of which they indeed proceed. A system of foliage is indeed vitally required, but its energy in the present instance, can be diverted from that course which nature ordains it to take. In this second year, the leaves are destined to nourish the progressing organs of fructification, and it will be observed that each bulb sooner or later, produces a flower stalk, with its umbel of flowers concealed within their spathe at the summit. As soon as this head at the point of the flower stalk, shall be distinctly seen, it must be pinched or cut off. Upon this operation depends the entire success of the plantation; for if the flowers develope, and the seed vessels enlarge, the bulbs will have no successors. A second, perhaps a third, flower sheath may appear, and must be immediately obliterated; this done, the leaves become stronger, and their laborated juices are instantly diverted, and called in aid of those germs of young bulbs which lie in embryo, and would perish with the parent, were the seed bearing processes allowed to be carried to any considerable extent.

After the final excision of the flower stem, a singular change, or rather a new development, takes place in the bulb. From being soft and spongy, owing to the previous exhaustion of the layers, they begin to re-acquire solidity,—that is, they appear to acquire it, for the phenomenon is in reality dependent upon the progressive, but almost secret, production of one or more new bulbs. Nothing can be more impressive than this mysterious development; its course can scarcely be traced. I do not dare to assert, that a practised eye, gifted with a peculiar quickness in discerning physiological mutations, may not mark and detect those which are wrought in the formation and the enlargement of the new onions; but I do say, that among above ninety plants which I obtained last summer, neither I myself, nor a

youth who planted the old bulbs, could trace the progress of the new ones. I may be excused for quoting the passage which I wrote in my diary, because it may be considered more simply true to the then observed facts, than any thing I could now pen from recollection.

“As the leaves advanced, the bulbs became soft and exhausted; as flower heads arose, they were pinched off and gradually new bulbs formed, two, three, and four to each, the old bulb and skin vanishing in a way not to be detected.”

I admit I have adopted this mode of planting but once, and, therefore, may have been in some degree misled. A future experiment will perhaps lead to more correct observations. I hope, however, that numbers may be induced to inquire for themselves; they will assuredly be recompensed by a very excellent crop of good onions, of a medium size, either in June or July. Mine, of 1835, was retarded by the extreme drought and piercing nights of May, and I had not attended to the previous preparation of the bed. I have expressly selected the Spanish or Reading onion for this summer crop, because it is mild and pleasant in flavor, and may be grown to greater perfection at the season; the process is worthy of the variety, and the variety is adapted to the process. The summer onions do not keep very long, nor is the Spanish a long keeper at all; hence particularly improper for the full winter crop, which ought to be hardy and of high flavor. I might have chosen the *Tripoli*, which produces the largest bulbs, so large, indeed, that Mr Knight assured me he had grown several bulbs that weighed more than two pounds each, but it is very apt to decay. Many gardeners affect the variety termed the underground or *potaio* onion; but the process I have described furnished, I think, an excellent substitute for it, especially as the flavor of the Spanish is far more delicate than that of the underground bulb. I claim none of the merit of discovering the foregoing method of multiplying the bulbs; but am certain that if practised by any, it is known to very few persons, and my remarks will tend to diffuse the knowledge of it.

Seed Crop.—These fine large onions may be raised pure to their originals, by planting imported bulbs in a warm situation, exposed to the sun. The season might be the same as that of planting for a summer crop, and the soil a rich, mellow, sandy loam, well manured. The foregoing process for bulbs is adapted to the culture of seedling onions, with this especial exception, that the flower heads must be encouraged, and each step supported by a stake, as it advances in height. I am inclined to believe that were the imported bulbs of the *Tripoli*, Spanish, and Portuguese planted, one in a large pot of very rich soil, about the first week in January, protected under glass in a common garden pit or vinery, not in action, and finally transplanted, with the ball of fibres entire, when all danger from severe frost had ceased, a month would be gained, which, in the month, might be found of some consequence, as the seed would be matured by an August sun.—*Canterbury (Eng.) Journal*.

Slave Cutting Machine.—We were interested the other day, in looking at a Slave Cutting Machine, the late invention of Messrs. Merrick and

Loncey, two ingenious machinists of this town. The present method of working out a stave with a shave by hand, we take it, is the most slow and difficult part of the operation in making a barrel. This machine, with its companion for joining and matching, must therefore prove of great importance and saving of labor. It must prove a great facility in those places where flour and provisions are put up in large quantities. It is a very simple affair, to be operated by horse power.—The saws are like two cylinders, or two halves of a barrel revolving swiftly, striking the wood at each end, and running to the centre, till the stave is sawed out, the shape of the saw giving the stave its suitable bend. At the instant the stave is cut to the centre, it falls under the machine, and at the same instant, a spring throws back the saws to their starting point, for another stave, and so on with great rapidity. Another machine joints and matches them for putting up. With these machines we are assured that two men can make the staves ready for a barrel in *three minutes*! With larger or smaller saws, casks of any size may be made, from a hogshead to a powder or white lead cask. There is no loss of timber by the process, and the staves may be sawed of any thickness desired. The inventors have obtained a patent.

Mr. Merrick has recently invented an engraving machine. An iron or sealing wax cast is made of the medal to be engraved. This is so placed in the machine (which is turned with a crank by hand) as to control the movements of the graving tool as it traces the lines on the copper, in obedience to its pattern, with the accuracy of a human hand. The graver may be so fixed as to increase or diminish the size of the engraving from that of the pattern or medal.—*Springfield Republican*.

WILSON'S MOWING MACHINE.

The day succeeding the mowing exhibition at Flatbush, we gave the same a cursory notice. From circumstances beyond the control of the persevering inventor of the machine, the experiment was not so successful as expected. In addition to a deceptive plat of ground which was covered with stones, and the grass rank, in the midst of the exhibition, the rain fell in torrents, which drove the spectators from the field. Since then another public trial of it has been made, and the result may be gathered from the following certificate of the gentlemen appointed by the American Institute, to witness and testify to its merits, to which we have nothing to add, except that the judges are all intelligent and respectable, and with the exception of one, a machinist, practical farmers, residing on Long Island, whose opinions and judgment command the respect of all to whom they are known.—*New York Sun*.

CERTIFICATE.—We, the undersigned at the request of the American Institute of New York, attended the exhibition of Wilson's Mowing Machine, the 19th instant. It was operated by horse power, on the farm of Doctor Vanderveer, Flatbush, Long Island. A number of circumstances occurred at that time unfavorable to its operation, which induced us to desire a fuller and more satisfactory test than that occasion afforded. We have since tested it effectually on the farm of Mr. Abraham Lott. It has performed to our entire

satisfaction, and it is our opinion that it will prove a useful agricultural machine. The ground to be mowed must be smooth. It is not necessary it should be level, but it must be free from holes, small hillocks and stones; and it should be moved by animal power that is uniform and steady; and, we believe, under such circumstances, one man with two horses, would perform the work of ten or twelve men. And in certain parts of our country, for instance on our western prairies, we think it would be of great value. The different parts of the machine appear strong, and, as we should judge, well calculated to keep in order. It sharpens itself at the very time it is cutting, which we think an important property of this invention.

On the whole, we are of opinion that Mr. Wilson's perseverance and ingenuity merit the gratitude of the public, for perfecting a labor-saving machine which promises to become an important acquisition to agriculture.

ABRAHAM LOTT,
GERRIT KNOWENHOVEN,
DAVID JOHNSON,
GERRIT VANDERVEER,
JAMES HAMILTON.

Flatbush, 25th July, 1837.

(From the New England Farmer.)

SMUT IN WHEAT.

South Bridgton, (Me.) July 31, 1837.

To T. G. FESSENDEN, Ed. N. E. Farmer:

Sir:—Your correspondent in the present volume, page 20, is wishing for the experience of others in relation to smut in wheat.

Believing it to be the duty of every man to communicate any facts within his knowledge, which may tend to promote the public weal, I send you the experience I have had in relation to the culture of wheat.

Some more than forty years since, my father was directed, by an Englishman living near him, to prepare his wheat for sowing, in the following manner:—To one bushel of wheat placed in a large tub, add three quarts of *slacked* lime; let the wheat be higher at the sides of the tub, than in the middle where the lime is to be placed;—take a sufficient quantity of brine, as strong as it can be made with salt in *boiling* water, and apply the same moderately to the lime; and by continually stirring the same, make it into a white-wash; then with a hoe or shovel, mix it well together, so that every kernel will be whited. The brine to be applied *hot*. This to be done 12 or 24 hours before sowing.

Previous to this, we had much smutty wheat. Since then it has invariably been prepared in this manner, and I never have seen ten heads of smut in my fields. My neighbors generally practice the same mode of preparing their seed, and I seldom hear of smut. As the usefulness of any preparation must be tested by experience, there are two additional facts within my knowledge, which are in point. A man near me sowed his wheat prepared as above; not having quite sufficient seed. He sowed about four quarts of some kind of seed unlimed. This produced at least one fourth smut, while there was not any among the other. Two men bought each two bushels of fine seed wheat from the same cask—sowed it about the same time, and on land similar. One of them prepared

his wheat according to the foregoing directions, and had no smut. The other did not, and had nearly one fourth smut. If the wheat is smutty, I should advise to wash it clean and *dry* it before applying the lime. P.

IMPORTANT SALE OF IMPORTED SHORT HORNED CATTLE AT PHILADELPHIA.

On TUESDAY, 12th Sept. 1837, at 11 o'clock in the morning, will be sold at public sale by catalogue, at Powelton, about one mile from the city of Philadelphia, 33 HEAD of Mr. Whitaker's improved short horned CATTLE, viz. 18 COWS and 15 BULLS.

These cattle were shipped from England at the suggestion of Col John Hare Powel, when he examined Mr. Whitaker's stock in September last, and are well worthy of attention.

M. THOMAS & SON, Aucs.

Philadelphia, Aug. 1837.

A catalogue with the pedigrees, &c. may be seen at the office of the Farmer and Gardener.

At the same time will be sold a thorough bred SPANISH JACK, imported from Spain in 1836. Also a three years old, and from very superior Jennets.

au 22

2t

CABBAGE SEED, &c.

FOR SUMMER AND FALL SOWING.

Just received, an additional lot of Early York Cabbage Seed of the Scotch short stalk variety, imported from Edinburgh. This cabbage is full as early as the English Early York, larger head, very dwarf, and is decidedly superior to all early cabbage seed for fall sowing. Also, Early dwarf Paris, Early Battersea, Early George, Bullocks-heart, Flat Dutch, Savoy and other Cabbage Seeds. Large Holland Cauliflower, and Kale Seed, of various sorts, among which is the Delaware Kale, the best sort for fall sowing, color dark green, tinged with purple, the leaf tender and curled.

IN STORE,

Corn Salad, Curled Endive, early Curled Cilicia, brown Dutch and large white head Cabbage Lettuce seeds; black and white Spanish and yellow Turnip Radish seed for fall sowing, the latter a superior sort, and will produce well if sown at any season of the year.

Will be in store in a few days, the Pye Plant or Tart Rhubarb seed, producing a very choice vegetable, and should be cultivated in every garden.

ROBT. SINCLAIR, jr. & CO.

Light, near Pratt street wharf.

aug 22

A R V P 2aw3w

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INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style.—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs.

JOHN T. DURDING & CO.

je 27 4t

Fronting Grant and Ellicott sts.

MORUS MULTICAULIS

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which will be ready for sale this fall.

August 15.

EDWD. P. ROBERTS,

Baltimore, Md

WHITE TURKEYS, GEESE AND PIGS.

THE subscriber has for sale a few pair of pure White Turkeys, large Westphalia white Geese, and Barnitz white Pigs, which will be sent to order, cooped and furnished with feed suitable for a voyage, at \$10 a pair for the latter, and \$5 a pair for the two former.

ROBT. SINCLAIR,

au 7 4t

At Clairmont Nursery, near Baltimore.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 50	8 00
CORN, yellow.....	bushel	93	95
White,.....	"		102
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana—Alabama.....	"		13½
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR&MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	9 00	9 50
" wagon price,	"		
City Mills, super.....	"	8 00	8 25
" extra.....	"	8 50	
Susquehanna,.....	"	9 37	
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhds.	hhd.	24 00	
do. in bbls.	bbl.	4 50	
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	
Timothy(herds of the north)	"	3 50	4 00
Orchard,.....	"	2 00	2 50
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"	75	1 00
HAY, in bulk,.....	ton.	12 00	18 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	6 75	6 87
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	38	40
PEAS, red eye,.....	bushel.		
Black eye,.....	"	87	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	3 37	
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	70	75
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 75	1 80
Red, best.....	"	1 65	1 70
Maryland inferior	"	1 20	1 40
WHISKEY, 1st pf. in bbls.....	gallon.	34	35
" in hhds.....	"		33
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 75	
To Wheeling,.....	"	2 00	
Wool, Prime & Saxon Fleeces,.....	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.		13½
Shoulders,.... do.....	"		11
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	10	10½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....par		VIRGINIA.
Branch at Baltimore,....do		Farmers Bank of Virgin. 2
Other Branches,.....do		Bank of Virginia,....do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,....par		Petersburg,.....do
Hagerstown,.....½a		Norfolk,.....do
Frederick,.....do		Winchester,.....do
Westminster,.....do		Lynchburg,.....2½
Farmers' Bank of Mary'd, do		Danville,.....do
Do. payable at Easton,... 1		Bank of the Valley,.. 2
Salisbury,.... 2 per ct. dis.		Branch at Romney,... 2½
Cumberland,..... 3		Do. Charlestown, 2
Millington,.....do		Do. Leesburg,.... 2
DISTRICT.		Wheeling Banks,.... 4
Washington, } Banks, ½p.c.		Ohio Banks, generally 6a7
Georgetown, } Banks, ½p.c.		New Jersey Banks gen. 5
Alexandria, }		New York City,.... 1
PENNSYLVANIA.		New York State,.... 3a4
Philadelphia,.....½a		Massachusetts,.... 3a3½
Chambersburg,..... 1		Connecticut,.... 3a3½
Gettysburg,.....do		New Hampshire,.... 3a3½
Pittsburg,..... 3½		Maine,..... 3a3½
York,..... 1		Rhode Island,.... 3a3½
Other Pennsylvania Bks. 4		North Carolina,.... 6
Delaware [under \$5].... 6		South Carolina,.... 8a10
Do. [over 5]..... 2		Georgia,.....do
Michigan Banks,.....10		New Orleans,..... 15
Canadian do.....10½		

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis. JONATHAN S. EASTMAN.

Feb. 14

ASSES AND STRAW CUTTERS.

I. I. HITCHCOCK, Agricultural agent, Philadelphia, offers for sale several JACKS and JENNETS, equal in size and in their qualities of good breeders to any animals of the species in the United States, ranging from 13 to 14 hands high, of good age, the Jacks all thoroughly proved, several of the females having foals now by their sides, and all in foal by first rate jacks.

He is also agent for the sale of Green's patent Straw, Hay and Stalk Cutter, a late invention, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1st. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it very efficiently.

2d. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed for any other machine, even when worked by horse or steam power.

3d. The knives (12 in number) owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter; and when they have to be ground, they are as easily taken out and replaced, as a scythe or hay knife.

4th/ The machine is simple in its construction, consisting of very few parts or pieces, which are made and put together very strongly. It is therefore not so liable as the complicated machines in general use, to get out of order. It is about 3½ feet long, 2 feet broad, and 3 feet high, weighing about 150 lbs.

STRONG TESTIMONY.

MOBILE, Ala. Jan. 25, 1837.

I. I. Hitchcock, Esq.—Dear sir—I observe by the Farmer and Gardener, that you are agent for the sale of "Green's patent Straw Cutter." I have had one in use on my farm in North Alabama for fifteen months. I feed with cut oats about 50 head of horses, mules, &c. and find it of great use—far superior to any other cutting knife I have ever seen, and I have them that cost from 5 to \$50. Indeed its real value can be known only by those who use it.

I have commenced a plantation in Mississippi, and will this spring sow 50 acres of oats; and as a means of economy as well as an immense saving of labor, I wish my farm supplied with one of the machines above mentioned. Will you please to select me a good one, have it well oiled and packed, and shipped to this city.

JAMES ELLIOTT, Gainesville, Ala.

The machine is kept at No. 5 South Fifth street, Philadelphia. Price \$32 in the store. When sent out of the store, the packing, drayage and shipping will cost about \$1 more, say \$33. Address I. I. HITCHCOCK, au 22 cowntf Philadelphia.

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to

SANDS & NEILSON,

Office of "Farmer & Gardener," jy 25 4t Corner of Charles & Market sts. Baltimore.

CONTENTS OF THIS NUMBER.

Notice to subscribers; do. of a complimentary letter; do. of the products of spring wheat and Baden corn; do. of Dutton corn; do. of the removal of Niles' Register to Washington, D. C.; on the culture of onions; communication on the culture of spring wheat in Maryland; prolific corn, supposed the Baden; communication on the success of the culture of spring wheat in Virginia; do. in Pennsylvania; notices of do. in Virginia; notice of the sale of, and the pedigrees of Mr. Whitaker's short horned (grahms; manuring by a system of cowpenning; essay on the culture of the onion; stave cutting machine; Wilson's mowing machine; smut in wheat; advertisements, prices current, &c.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 18.

BALTIMORE, MD. AUGUST 29, 1837.

Vol. IV.

THIS publication is the *successor* of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, AUGUST 29, 1837.

As a considerable portion of the spring wheat advertised for sale by us has already been engaged, we again take the liberty of reminding those farmers who may desire to procure some, of the necessity of making prompt application.

We learn with regret that the Turnip Fly and Grass-hoppers are rife in their devastations of the young plants. Farmers should not be deterred by the cutting off of the first seeding to make another trial.

EFFECTS OF AGRICULTURAL BOUNTIES.

It has been stated in several of the papers published in the state of *Maine*, upon an estimate made by an agricultural gentleman, that the product of *wheat* in that state this year, will be about 1,600,000 bushels, equal to 320,000 bbls. of flour. Last year, it is stated on the same authority, that *Maine* imported 150,000 bbls. of flour, and that she will this year have a considerable quantity to export. This favorable change in the product of this article has been brought about thus suddenly by the adoption, by a late legislature of that state, of a law granting bounties to the raisers of wheat. Such has been the avidity with which the farmers have availed themselves of the provisions of the law, that it is calculated the amount of bounties which will be drawn the present year from the state treasury, will not be less than \$150,000. This, at the first view, will appear a very large sum; but when the immense benefits which will probably accrue to *Maine* are properly considered, they will be found to outweigh every objection that could be raised on the score of the abstraction of so much money from the coffers of the state. Heretofore, *Maine* has had to rely upon other states for a large portion of the breadstuffs consumed by her people; but now, under the influence of a wise and salutary enactment, in a single year, she presents to her sisters of the confederacy, the singular and most creditable example of becoming a rival exporter. This state of things, while it is gra-

tifying to that generous pride of state, which each of her sons will doubtless feel, will greatly tend to increase individual and public wealth. It has long been the policy of the eastern states, generally, to stimulate agricultural industry by similar inducements, and the good effects are visible in every direction throughout that region of frugality and industry. With soils and climates by no means favorable to the full development of vegetable growth, the condition of their agriculture is very far in advance of that of most of the other states. By judicious management of the resources within their possession—by strict observance to the making and preservation of manures—by the creation and support of agricultural societies—by the indefatigable exercise of a hardy industry on the part of the people, and by the fostering and paternal care of the government, all those difficulties arising from lands measurably sterile, a sun inauspicious, and seasons of short duration, have been overcome. With these examples—with the rich fruits of their happy effects—before them, should not the legislatures of the other states, where Providence has been so much kinder, take counsel and follow in the footsteps of their eastern brethren; and above all, should not the people bestir themselves in the good work of reformation. It is useless for the husbandmen of our country to call upon legislative bodies for aid without first setting an example to show that they are worthy of it. If we are asked, what are the incipient steps to be taken by the people? We answer, first, that agricultural associations should be formed in every county, whose population will support one, and in addition to these, *general state societies* should be also formed, and when sufficient impetus shall have been given to those preliminary measures,—when a spirit of enterprise is diffused throughout the several states, *annual fairs* should be held. As soon as the county associations are organized and in active operation, then the several state legislatures should be called upon to grant pecuniary aid to create and sustain pattern farms. All new enterprises in agriculture should also receive the fostering protection of the state government. What would the burthen of the expenditure of a few thousand dollars, by each state, to promote objects of real agricultural utility, be, compared with the sum of bless-

ings which would flow from such outlays? Money judiciously placed for the advancement of such objects, would be prolific of good to entire communities; for there is nothing more certain than this—that all such public appropriations of the means of a state, in their good effects and benefits, encompass every class of society; for though they may be, in the first instance, bounties bestowed to the tillers of the earth, ultimately every portion of the community reap in common with them the advantages flowing from them.

Several years since, some of the Eastern states granted bounties to encourage the culture of silk, and the consequence has been, that the wisdom of those measures are to be seen in the rapid advance which it has made there, it being admitted on all hands that in the New England states, it is very far ahead of the rest of the country, and this too notwithstanding these states are by no means as well adapted by *location*, as any of the middle or southern states for that culture. Should not these facts awaken a spirit of inquiry in the minds of the entire farming communities of the rest of the country? Should it not inspire them with feelings of emulation, and the desire to husband and protect their interests? If we are asked how this is to be brought about, we reply—that where it is desirable to obtain the patronage of the legislature, those who are clothed with representative trusts must be made to feel certain, that what is asked will be popular with the people. If this fact be conceded, and we think it cannot be denied, then we say, that every man engaged in the cultivation of the earth must move in the premises. Let meetings be not only called, but *attended*—let the rich and the poor go to them—for all are deeply interested in their results—and prove by the display of *numerical* strength, that *numbers* are ready to back the prayers which may be made. In this, as in all other popular governments, it is absolutely necessary to demonstrate, that what is asked for, is so asked by *majorities*; for after all the representative should have his *warrant* for his action. Give him *that*, and you will find but few possessing hardihood enough to resist calls which come thus supported before them.

It is not sufficient that, in many of our legislative bodies, *committees* are annually appointed "*on Agriculture*"—if those committees be not form-

ally approached by the people, they will do nothing, and for the very good and sufficient reason, that *nothing* is asked of them. If you require them to do some substantive good, you must appear before them in a shape and form that they will both understand and appreciate. The difficulties under which agriculture rests must be stated and remedies pointed out. When these things are properly done, we may expect to see such legislative action as every friend of the cause will rejoice at. But till they are, it is futile to hope, that legislative bodies will move in behalf of the agriculture of the country. Agriculture is the first interest of every country, but if it expects to be respected according to its merits, it must shew its hands—its members one and all must move in solid columns, and put their shoulders to the wheels, and then if they call on Hercules, he will most assuredly help them.

[For the Farmer and Gardener.]

MANURING LAND BY A SYSTEM OF COW-PENNING.

(Concluded.)

Mr. Roberts—I will conclude the subject of my last, by a review of the advantages I am assured I derive from my process of manuring by a system of "cow-penning."

Any person that has ever attended in any manner, judiciously, to the operation of cultivating land, must have observed the effects upon soil, by simply drawing it upon a *hillock*, and suffering it to remain in that state for some time. In the vulgar expression, "it gets rotten," and the productive qualities of the earth is singularly increased.

If the Flemish system of husbandry has any merit, and I am satisfied it is the most perfect *productive* system on earth, this manuring by "cow-penning" approximates near to it, as previous to drawing *down* my hills, I run a scooter plough as deep as I can, between the hills, loosening up the ground, which allows the roots of the plants to go as far in search of food, as the liquid part of the manure has went. If the land is inclined to be stiff, a superficial observer knows, that ridging or hilling stiff clayey land, is one of the happiest modes of destroying its tenacity, and if there is any mode to make our uplands assimilate to our river low grounds, it is by doing as the Flemings do, create a "deep soil." In years of drought, the advantage of having a *deep soil* is proverbial. By hilling up the land, I throw to the ameliorating influence of frost, dews, &c., a much greater surface to be acted on, and on the same principle doubly destroy the seeds and roots of noxious plants. By *covering* the manure in the hills well with earth, it arrests exhaustion by the operation of the sun, air, rains, &c.; and the process of decomposition goes on, slowly—That the operation of the atmosphere, &c., is singularly ameliorating in its effects on earth we know, for earth dug out of a well, the first year produces nothing, but ultimately is covered with herbage. I *ameliorate* the *substrata* of my land.

But, sir, it is certain, that land treated in this way, is thrown into state of *kindliness* to the operation of the plough, that I never could make the common mode of cultivation, or ploughing, and hoeing resemble. By covering the ground with *leaves*, and then *weeds*, or a substitute, I gain two important points. I preserve the liquid parts of the manure from passing off by *evaporation*, and from being carried away by *rains*. No current can take place amongst the leaves, &c.: witness the *woods*. And I save *every drop* of this most valuable manure. It will be seen, that in all the operations of *making* my manure, and in addition, of *applying* it, I have but *one hauling*, and that is *to the spot*. To shew your readers, sir, in one particular instance, the great *decrease* of expenditure of *time* and *labor*, that I have effected, I will give a part of my plan. Adjoining each body of *cleared land*, I have enclosed in a yard, a large *shed*, nothing more than six or eight flat, light, wood posts, placed in the ground, supporting a plate, and which supports in turn, a clapboard roof. Those sheds, owing to the manner of construction, will last 25 years. The corn raised on the field nearest to this shed, is *cut at the ground*, when at a certain stage of ripeness, and by the simple *three* operations of *cutting*, stacking for 10 or 12 days, and hauling to this shed, I effect the curing, saving, and housing of my *corn—fodder, shucks, stalks, tops, and stalks*, all preserved at the happiest moment, as regards their *nutritious* qualities. And here they all are, ready to feed away to my stock, *just at the spot* where my 'cow-penning' system is going on. Now, sir, just recollect of the *hundred different movements*, back and forward, *hauling* "thither and yon," pacing about, from "Dan to Beersheba," that takes place in any and all of the usual systems of effecting agricultural objects, between the time of "*getting the fodder*," feeding away, turning into *manure*, and having that manure deposited on the ground to be improved, and the ground broken up, and prepared for planting.

For the purpose of increasing, as much as possible, the deposit of the animals cow-penned, I keep them up as much as I can possibly provide the means. And here at once, the singular value of the *gama-grass* is exhibited. The quantity of food necessary to feed a cow per day, can be cut with a properly constructed scythe in *two minutes*. But, sir, one of the greatest advantages I obtain, is from the *state* in which I find my ground when I go to *levelling* the hillocks, *preparatory* to planting. By no plan could I ever effect the same happy *friability* of the soil.

About the last of March or first of April, I plant my *CORN*. The "cow-penned" land is exclusively set apart for this crop. As regards the *corn crop* and its *value*, I am fully, and to all intents, a disciple of "Arrator." It occupies the *first place* with me. All things being ready, the *four stout fellows* "who made the hills," now *level* them—four patent *bar-shears*, two mules in each, follow, and the *whole surface* is *completely put under the ground*, as deep as possible. I go on the principle that the *roots will find the manure*, deep as it may be, and so will the broiling exhausting rays of a *summer's sun*, if this manure is formed on the surface.

On this part of my theory, I will hereafter give you an experiment, that settled it.

As soon as the hillocks are levelled, and the surface put under, the corn is *planted*, and the ground through the *whole* season *simply stirred*. The *ploughing* with me is always done, *previous to planting*: afterwards, I depend on *stirring*.—In the season that the ploughing is done, the ground cannot be injured by it. I lay my crop of corn by before the middle of May. When I level my hillocks to plant, there is not *living* on the ground, one root of grass, or weeds. I must again repeat, that I save every drop of the *liquid* part of the manure. Now, sir, in throwing up my hillocks, and then drawing them down and spreading, I *mix* and *blend* perfectly—and *prepare* the soil equal to *three* ploughings. My crops are all that I want: no matter what kind of a season, I have no *burning*; and I am able from this previous preparation, to plant and reap a *full* crop. Sometime hence I will give you my crop of this year, as it is succeeding to admiration.

[From the Southern Agriculturist.]

TUSCANY CATTLE.

COLUMBIA, May 25, 1837.

Mr. Editor—Very little attention has been given by our planters generally to the breeding of stock, particularly of cattle and sheep. The cultivation of cotton has been the absorbing interest, and has kept off attention from most other matters.—There are but few gentlemen, comparatively, who have taken any interest in cattle in our State. The stock of Col. Thomas Taylor, and of Gen. Wade Hampton have been the chief sources to the upper country of what is called the English breed—the improved Long Horns of Bakewell.—Col. Wade Hampton has lately procured the improved Devon and Durham's, and the latter are perhaps, as fine specimens as were ever brought to the United States. Col. R. Singleton of Sumter, has also at different times imported from Europe, and procured from the North, cattle of the improved breeds, and he now has some very beautiful stock. The polled or hornless cattle, imported by the late Gen. McPherson, which have supplied a numerous progeny to our middle and lower country have deteriorated, and do not bear a good character. Several years ago, Commodore Bainbridge brought over a pair of Tuscan cattle, which were sent by him to Mr. Skinner of Baltimore, and by him were sold to the late John Middleton, Esq. of Santee. These cattle, it was thought, would suit our climate well, from their great power of resisting heat, and their hardy character. And I believe they have been proved to be animals admirably adapted to our soil. I am informed by gentlemen who have for several years tried this stock that they would not exchange them for any other. They are exceedingly thrifty—take on flesh so rapidly, that they are easily fattened—give rich milk, though, some say, not in great quantity—are fine oxen and travel faster than other stock, with less fatigue. The notices of this beautiful breed scattered throughout the volumes of the *American Farmer*, give them a high character, and I am surprised that I have seen no account of them in the pages of your Journal.

I have lately, through the aid of a friend on Santee, procured a fine pair of these cattle, and hope to have an opportunity of proving their cha-

acter. I am very desirous of procuring the cross between this stock and the English, as the latter will be rendered more hardy, and be more easily kept. The only objection to the fine English cattle is the quantity of food which they consume. According to the principle of breeding for improvement from a small and well formed male and a large female, advocated by Mr. Cline, we may safely calculate on a good stock from the cross.

Will some of our low-country-planters, let us know how this stock stands in comparison with others, and give us information in relation to the varieties and characters of other breeds, if any there are, in the lower section of our State. It is time that our attention should be sedulously given to the improvement of all kinds of stock, cattle, sheep, mules, hogs, &c.

The great depreciation in our chief staple will oblige us for sometime to live as economically as we can, and this consideration, if no other, ought to make us more attentive to the production of such things, as we daily require for our personal comfort.

Yours, truly,
R. W. G.

[From the Genesee Farmer.]

RED CEDAR HEDGES, &c.

Some years ago we sowed more than a peck of the seed in a young wood or coppice, and many of them grew, though probably not one-tenth of the whole number.

We have observed excrescences on our Red Cedars which are evidently the work of an insect; but we have not examined it, neither do we know that it would quit the Cedar to live on any other plant. There are excrescences indeed on a Michigan Rose six or eight rods from the Cedars, which possibly may be the work of the same animal, and we have shown that a depredator on the Cedar was willing to extend its range into a thorn hedge. We do not suspect however, that the insect in our Red Cedars will ever injure our plums and cherries, for during a sojourn of several years we have not observed it to evince any such disposition.

The Buckthorn (*Rhamnus catharticus*) grows in this neighborhood, and we are willing to procure some of the seed for our correspondent, should he request it; but we know not why it is more suitable for hedges than many other shrubs which we could mention. This variety is nearly or quite destitute of thorns.* It is an exotic; and like every other exotic, requires great care and circumspection before we depend on it for so important a purpose as that of guarding a field.

Some years ago we planted a hedge of the White Mulberry on a ditch bank. The meadow-mice worked among the sods that had been laid up, and destroyed a number of the trees by gnawing the bark, which left gaps in the line, and which have never been closed, though we believe

*A part of the specific character of *R. Catharticus* is "branches ending in spines," but in the variety under consideration these are wanting, and therefore, it would be more unsuitable for hedges than the other variety. Some species of *Crataegus* are characterized as "spiny or not."

from recent inspection that it might be easily made a good hedge. It has never been properly pruned or dressed. We do not know why a mulberry hedge may not be equal to one of buckthorn, though we cannot assert from actual experiment that it would.

To recur to Red Cedar hedges—The germination of the seed is too uncertain, to render it advisable to sow them on the line intended for the hedge; and the trouble of guarding such diminutive seedlings against the grass and weeds, would be too great. In our opinion they ought to be grown in a nursery or seed bed until they are one or two feet high; and then be set in the hedges at least one foot apart. The Red Cedar bears transplanting remarkably well.

Cedar balls have been somewhat celebrated as a vermifuge; and we have very little doubt that the appendages on our trees, are the balls which have been in so much request. We have one now before us, of a very rough and irregular form which measures nearly two inches in the longest direction.

ON THE ANTIQUITY OF TREES,

From Professor Candolle, in a letter to Edward Jesse, Esq.

Under this title, there is, in the Gentleman's Magazine, for June, 1836, a most interesting and elaborate article, extending to 13 pages. The account it contains relative to the vast age and size of trees, in different parts of the world are almost incredible, although the conclusions as to age are deduced from data, which are pretty generally recognized, namely, ligneous deposits, concentric circles, &c. The whole article is well worth transcribing, but we shall confine ourselves to the alleged facts.

It appears by Pomp Mela, lib. iii : c.3, that the Hercynian forest was a journey of sixty days,—*"dierum sexaginta iter occupans."*

The baobab of Adason, by ingenious and plausible calculations, is proved to be 5150 years old, and the taxodium, (*cypressus disticha*), by similar reasonings, we may consider to be still older.—p. 597.

Strabo mentions a cypress in Persia, in girth as much as five men could span, and believed to be 2,500 years old.—p. 572.

Evelyn mentions a mastic tree, measured by Sir F. Drake, which was 34 yards in circuit; and the tree in Brazil, which the Jesuits felled, which was 120 feet in circumference; and the trees in Congo, excavated into ships that held 300 men each; and another, in Lycia, which had a room in it 80 feet in compass, set with fountains, stately seats, tables, &c.—p. 572.

The largest English oak known is that called Damoy's, in Dorsetshire; its circumference was 68 feet. It was destroyed in 1785. The Bodington oak was 45 feet round.—p. 576, note.

The largest tree, however, is the cypress of the village of St. Maria del Tuli, which is 118 feet in circumference, larger than the dragonnier of the Canary Islands, and all the baobabs of Africa. At Atlexo is a cypress tree, 86 feet in circumference. Humboldt mentions baobabs having a diameter of 30 feet. *Le plus grand et le plus ancien des monumens organiques de notre planete.*—See Tableau, vol. iii, p. 37)—p. 577.

In the valley of Bujukdere, but three leagues from Constantinople, there grows a plane which recalls to our memory that which Pliny has made so celebrated. It is 150 feet round, and in it is a cavity of 80 feet circumference.—p. 578.

The walnut deserves an examination. The architect Scamozzi says he saw, at St. Nicholas, in Lorraine, a table, of a single plank of walnut, which was 25 feet broad, and on which Frederick III. gave a celebrated feast.—p. 578.

Those (the yews) of the ancient abbey of Fountains, near Kipon, in Yorkshire, already known in 1155. Pennant says, that in 1770 they were 1214 lignes in diameter, and, consequently, more than twelve centuries old.—p. 679.

Humboldt mentions the chesnuts, as amongst the largest trees existing. Lysons measured the Tostworth chesnut, in 1791, and made it 45 feet 3 inches round. That at Hitchin Priory, Hertfordshire, in 1789, had a circumference of 14 yds. at 5 feet from the ground. Brydone says he measured the Ætna chesnut, and so had Mr. Glover, and separately, they made it exactly the same 204 feet round.—p. 578, note.

Those (yews) of Brabourn church-yard, in Cent, had in 1660, a diameter of 2588 lignes, and if still living, must have attained a period of 3000 years!—p. 590.

But still I allow that the baobab, which is not a tree of hard wood, and which yet, according to Adason, reached the age of 5000 years, should make one cautious in reasoning about the age of trees, as connected with the softness or hardness of the wood.—p. 580.

The wax plum attains the height of 180 feet. Humboldt considers them as the loftiest of the vegetable world; but they are exceeded by the pines of California, some of which have grown to the immense height of 230 feet, and the Norfolk Island pines (*araucaria excelsa*), which measured 228 feet. In Barnett's Outlines of Botany a pine is said to have exceeded 400 feet, which is the height of St. Paul's. The spruce fir of Norway is said to attain from 150 to 200 feet in elevation. Measuring the *pinus Douglasii*, (timber whose bases are unequal being measured as the frustum of a cone,) it gives 397 loads 6 feet of timber. *Pinus-Lambertina* gives 429 loads, 14 feet!—p. 681, note.

Some of the trees of this class (branching trees) certainly attain a great age. Such is the famous dragon tree (*dracena draco*) of the Franchi garden at Oratawa, in the island of Teneriffe, which was celebrated so far back as 1402, when the island was discovered, and which was then an object of veneration to the people.—p. 581.

In a note on the preceding we find this sentence:—It grows in the garden of M. Franchi, in the little town of Outawa, now called Taura. In 1799 it measured forty-five feet around. Humboldt considers it, with the baobab, to be one of the oldest inhabitants of the earth. The *dracena*, though cultivated in the Canaries, were originally from India. In the review of Humboldt, in the Quarterly, some objections are raised to the age he has given to this tree. Mr. MacWilliam, in his essay on the Dry Rot, says—Many trees might be mentioned, in this and other countries, which bear sufficient testimony of being far above 1000 years old; and he gives reasons for believing that several trees now exist more than 3000 years old.—p. 581, note.

The Errors of a Cultivator of the Vine.

So much has been written on this subject, and by so many who knew nothing about it, that it is not wonderful, a novice like myself, should have been led into many radical mistakes. My experiments, trifling as they are, may induce others to follow in my steps, and if they act for themselves, light may be thrown upon one of the most innocent, rational and interesting amusements, that an old man can take up with.

Amongst the employments for the summer, in a lonesome neighborhood near the mountains of South-Carolina, I undertook to cultivate the vine in my garden. I had never seen the process, although I had read many books on the subject, and the impression on my mind was, that if trained at a height of ten or twelve feet, success would probably attend my efforts.

To gain this height as speedily as possible, as soon as the cuttings began to shoot out the second year, I turned my attention altogether to gaining height. For this purpose, I kept down every lateral shoot, and training the leading one carefully up a post, I succeeded that year in reaching, in some cases, a height and length of stem that very much surprised me. I was not prepared to take advantage of the rapid growth, for I had no arbor raised to receive my vines, nor even a good espalier. With almost back-country thriftlessness, I patched up, what I was forced to call, "a sort of a contrivance," by way of espalier, and on this my vines got so fixed that I could not extricate them, to prepare for next year.

Early the third year, I prepared to make at least a small crop of grapes. The few shoots, I had left on the vines, more by accident than design, I trimmed down to one, and occasionally two eyes. I had read that each eye would produce me a bunch of grapes, and I knew from experience on other agricultural matters, that a very small crop would be likely to be well tended! I therefore left as few chances as might be, of the vines bringing more grapes than were necessary.

As the spring advanced, I got deeply interested in this new occupation, and there being a much larger and finer crop than I could have expected, without inquiring into the cause of this, my special attention was called to prevent the rot or dropping of the fruit.

Reasoning from my slender experience in this culture, it struck me that nature in giving the immense luxuriance to vines, had some other object in view, than merely producing wood and superabundant shoots, that probably if this luxuriance was not kept down, I should, in gaining size in my vines, lose my grapes by the rot; whereas if the growth of the vine was entirely kept under, the extra nourishment would be directed into the right channel, and strengthen and ripen all the fruit I had on them.

My success was complete; as fast as a shoot or a leaf put out, near or on the fruit stems, I pinched them off with my nails while they were tender and cut off every one of the long shoots but one. My watchfulness was excited by continued success, and I had the gratification to see every bunch of fruit hastening to maturity, with scarcely the loss of a single grape.

Confident that I should have fruit, and of the

best kind, I now locked up my garden, and kept the key in my pocket. My visits were indeed frequent, and my watchfulness extreme, but such abundance of the most tempting looking grapes I had ever seen, could not be neglected. To be brief, I kept them hanging a full month after every body pronounced them ripe, and from the richness of flavor, the delicious ripeness of full maturity, I was more amply rewarded, than I had ever been before.

The fourth year, I pruned again, leaving three or four eyes on such fruit stems as I thought necessary, expecting (as I had before expected) to have a single bunch to every eye; that is, three or four bunches on each fruit stem. Guess my surprise, Mr. Editor, on now observing as the fruit came out, that instead of a bunch of grapes at each eye, a new fruit stem put out there, on which there were sometimes three, sometimes four, and I verily believe, sometimes five bunches. I was puzzled by this unlooked for quantity, which was four for one and hesitated for some time what I should do. At length, however, the commendable desire of ascertaining a fact, conquered my fondness for even such grapes as I had enjoyed last year, and I decided to try to save from the rot, all; even the immense quantity of fruit that was daily advancing.

With this sole object kept in view, I pursued steadily my last year's plan. I nipped off daily, such young shoots as appeared, almost while in the bud, and especially kept the fruit stems, on which the grapes were hanging, from extending in length. Here and there I allowed a main shoot to push onward, as I contemplated erecting my twelve feet arbor, and looked forward to covering it in the most perfect manner—all other wood was kept down.

But I must conclude. My experiment of saving the grapes from dropping, succeeded beyond my most sanguine expectations; the fruit hung until a frost, but never ripened! There was more than could be perfected by much older vines. Yet although I lose the use and enjoyment of it in its ripeness, I satisfied myself as to what it was that occasioned the rot in grapes. I am persuaded, it is because the growth of the vine itself is allowed to go on after the fruit is set. Keep the young growth from putting out beyond an inch, by pinching it off short, and your fruit will not drop. When it is apparently ripe, let it hang two or three weeks on the vine, (locking up your garden,) until perfectly matured, and in order fully to enjoy it, eat it early in the morning, or at mid-day. My errors ought to be clearly stated; they were first in training up a single stem without a branch; from which mode, such of the vines as accidentally lost their leading shoot, were left, as the French say, "sans ressource," and died down to the ground, while others perished altogether.

The second was in neglecting to have substantial supports prepared before hand. From want of this my vines suffered, while the trouble it cost me was enormous.

My last error had nearly proved fatal. From permitting the vines to be completely exhausted by the quantity of fruit left on them—they will not recover their strength for years to come.

AN UPPER COUNTRY RECIUSE.

[From the Yankee Farmer.]

MARL.

We have been requested to give information so that farmers may know marl and its effects and how to apply it to the soil. We publish an article on this subject, commencing on the first page of this paper.

A writer in the present volume of the Yankee Farmer, page 195, wishes to know how he may know marl if he should find it—when and how it may be found—what it looks like—feels like, smells like, tastes like, &c.?

Marl is often found in flat lands where water stands. Sometimes by the side of rivers, under sand banks. It looks something like fine clay, but is usually of a lighter color. It has a greasy feel similar to clay, but it is not tenacious and cannot be made into mortar, as it crumbles like chalk. It has no smell of itself, but it may imbibes an odor from some vegetable or mineral substance. When dry it tastes much like chalk. Marl is an excellent manure, and it can doubtless be found in many parts of the country where it is not now known. Farmers, attend to this subject; many of you have upon your own farms substances with which you may enrich them and add greatly to your income. We have seen in many parts of the country, particularly when sand hills have been dug down in making woods, a clayey substance resembling marl, that may be easily pulverised when dry, which would be a good manure to apply to sandy soils that usually abound in the vicinity.

"Marl consists of calcareous matter, clay and sand, or some two of these earths. (of which lime or chalk is always one) in various proportions. The blue clay marl is free from sand. Clay marl is also sometimes of a yellowish white, yellowish grey, or a brown or red-cast. The shell marl seldom contains clay. In schistus or stone-marl, sometimes sand and sometimes clay, preponderates—generally the former. The sand-marl, whether shell or schistus, should be applied to clays; and clay marls to sands. In both cases, they correct the defects of the soil, by rendering it, in the first, less adhesive; and, in the latter, less open and porous.

The earths are not the food of plants. They constitute the stomach, analogous to the stomach of animals, in which vegetable and animal matter is received, digested, and, with the aid of the leaves [lungs] assimilated to vegetable chyle and blood. The best soil for this digestive process is that in which the three above named earths are suitably blended.

A sandy or gravelly soil is called hungry, because it digests rapidly, and dissipates the food committed to its bosom. Hence green crops, or frequent manurings, are necessary to continue it healthy and productive. Such soils are defective in clay and calcareous matter. Their texture may therefore be improved, and their fertility increased, by the application of clay marl; or, what is the same, by clay and lime separately; though these materials are found most pure and best blended in the substance of marl. The quantity should be proportioned to the natural deficiency of these materials in the soil. From eighty to a hundred loads per acre have been applied, in one or two dressings; and their bene-

ficial effects have been known to continue thirty years. All the sand soils of Norfolk, England, have been marled [clayed.] Calcareous matter combined with sulphuric acid [oil of vitriol] is usefully applied to soils in the form of gypsum, or plaster of Paris; as is also powdered limestone and chalk, both calcareous. I am induced to believe that neither wheat nor sainfoin-grass will thrive in a soil destitute of calcareous matter, which is the condition with most of our sands.

A stiff, moist clay, is called *cold*, and is unfriendly to the finer grasses as well as grains. Its texture is too compact to permit the roots to extend freely, and its temperature too cold to carry on the digestive process sufficiently rapid for the plants which grow upon its surface. Sand and lime, or silicious marl, loosen its texture, render it permeable to heat, &c. and powerfully assist to concoct the food of vegetables.

Marl may be known by the most ordinary observer. The application of a mineral acid and even of good vinegar, will cause an effervescence. This is the operation of the acid upon the lime. Its silicious and argillaceous properties may be ascertained by the sight and feeling by the aid of water, or of glass. Sand subsides or settles quicker than clay in a liquid; and will scratch glass, which clay will not.

It is a remarkable fact in the economy of nature, that indigenous plants of every country, are precisely those which are best adapted to furnish the proper sustenance to its animal population, and to satisfy its medicinal wants. So in regard to our soils,—every district generally affords the means of producing fertility. Hence the clay marls generally underlay sands; and shell and sand marls most abound in the neighborhood of clays. And in addition to the variety of fossil substances which are calculated to increase fertility, every thing that grows upon the earth, every particle of animal and vegetable matter is reduced to air and water by the chemical operations of nature, and in these forms become the food of new plants, to nourish animals. It is a truth calculated to teach humility, that the animal, the vegetable, and the putrid mass of dung, are found on chemical analysis to be very nearly alike, and that, in the natural order of things, they constantly nourish, feed, and produce each other. 'Nothing is nourishment for a vegetable but what enters into the permanent composition of a vegetable. Nothing is nourishment for an animal but what was originally a vegetable.' Man is enjoined to earn his bread by the sweat of his brow. He finds the most noble incitements to duty scattered around him, and he is seldom disappointed in obtaining the rewards, competence and health, which industry promises to her votaries. But I have another remark to make as to the food of vegetables. How scrupulously careful is the farmer of his grain, hay, and roots, which are destined to nourish and fatten his animals, and yet how thoughtless and inattentive as to the food of his plants! Vegetable and animal substances are suffered to waste in his fields and yards, unmindful of the havoc which the rains, winds, and sun, are daily making upon them; while a moiety of his fertilizing materials, the urine of his stock, is altogether lost. He will not suffer the flock of his neighbors to rob his own of their food; yet he sees,

with but feeble efforts to prevent it, his plants plundered by pestiferous weeds, of the food which is essential to their health and vigor.

"To find the composition of marl, pour a few ounces of diluted muriatic acid into a Florence flask; place them in a scale, and let them be balanced; then reduce a few ounces of dry marl into powder; and let this powder be carefully and gradually thrown into the flask, until after repeated additions, no farther effervescence is perceived. Let the remainder of the powdered marl be weighed; by which, the quantity projected will be known. Let the balance be then restored. The difference of weight between the quantity projected and that requisite to restore the balance, will shew the weight of air lost during effervescence. [That air proceeds from the calcareous earth alone, which contains 44 per cent. of this carbonic acid air. Suppose 500 grains of marl lose 44 grains by the escape of air, then that marl contained 100 grains, or one-fifth of its whole weight of limestone. T. C.] If the loss amount to 20 or 25 per cent. of the quantity of marl projected, the marl assayed is calcareous marl, or marl rich in calcareous earth. Clayey marls, or those in which the argillaceous ingredient prevails, lose only 8 or 10 per cent. of their weight by this treatment, and sandy marls about the same proportion. The presence of much argillaceous earth may be judged by drying the marl, after being washed with spirit of salt, when it will harden and form a brick.

"To determine, with still greater precision, the quantity of calcareous earth in marl, let the solution in muriatic acid be filtered and mixed with a solution of carbonate of potash, till no further precipitation appear. Let the sediment subside; wash it well with water; lay it on a filter, previously weighed, and dry it. The weight of the dry mass will show how much carbonate of lime, the quantity of marl, submitted to experiment, contained. See Kirwan on Manures.

"The quantity necessary to be used, varies according to the nature of the soil; but the utmost caution is requisite, because if too large a portion be scattered on the land, it cannot be easily removed; and if too little be employed, the deficiency may be readily supplied. On sandy, gravelly, or light soils, it will be advisable to spread as much as will form a thick coat, in order to bind and stiffen the ground. But, of whatever nature the land may be, the most judicious cultivators recommend such a portion to be laid on it, as will form a thin coat over the whole surface.

"The proper season for *marling*, is the summer; as this kind of manure is then perfectly dry, and not only lighter, but also more easily reduced to powder. Marl, however, may be advantageously spread during the winter-frosts; as in the latter season, there are few opportunities of performing other labors of the field.

"Previously to marling, the land ought to be diligently cleared from all weeds, and rendered level, both with the brake and the common harrow, so that the marl may be equally spread on the surface, where it should be suffered to lie during the winter. In the month of February, (March, or April,) and in dry weather, it will be proper to draw a bush-harrow, well weighted, over the land, that the marl may be uniformly distributed; but, as this manure is very ponderous,

and sinks to the bottom of the furrow, if injudiciously ploughed in, it has been suggested to turn it into an *ebb-furrow* for the first crop; during the growth of the latter, the marl will incorporate with, and become a part of the soil, from which it does not readily separate. So permanent, indeed, are its fertilizing properties, that if land be properly marled, it will continue arable for the space of 12 or 14 years; and, for pasture, during a much longer period.

"A good *artificial marl* may be prepared, by mixing equal quantities of pure clay and lime, in alternate layers, so as to form a heap, which should be exposed to the winter frosts; this compound is well calculated for light lands; but, if the soil be strong and heavy, it will be necessary to substitute loam and sand for clay. Such compositions may be usefully employed, where marl is not easily procured; as they will amply repay the labor bestowed on mixing them, being little inferior to the genuine calcareous earth."—*Domestic Encyclopedia*.

An English writer on agriculture observes that 'whoever finds marl finds a mine of great value. It is one of the best and most general manures in nature; proper for all soils, and particularly so for clay.' It is usually found under moss, or peat, in low sunken lands, and especially nigh the sea or large rivers. It has been sometimes discovered by ant hills, as those insects bring up small pieces of shells from their holes.—*Complete Farmer*.

THE COTTAGE.

[From the Newark Daily Advertiser.]

"Roses bloomed in the garden—jessamines peeped through its lattices—and the fields about it smiled with the effects of careful cultivation. Lights were seen in the little parlor in the evening, and many a time would the passenger pause by the garden gate, to listen to strains of the sweetest music breathed by choral voices from the cottage. If the mysterious student and his wife were neglected by their neighbors, what cared they? Their endearing and mutual affection made their home a little paradise."—*New York Mirror*.

A *cottage garden*, properly cultivated, is full of beauty. Its well formed walks and borders, adorned with fragrant flowers, exhibit a gorgeous display of richness which cannot be surpassed. The English cottager takes a praiseworthy pride in the various species of flowers which adorn his garden; and not unfrequently prizes are awarded to him by horticultural and other societies for his skill in bringing to maturity, and presenting the world with improved specimens of floriculture. The study of the vegetable kingdom is also a subject of his earnest solicitude, and the avidity with which he pursues this favorite object is the theme of frequent admiration. The cognomen of "the garden England" is certainly an appropriate compliment, and it is but justice to remark that we are in a good degree indebted to the skill of the gardeners of our "father land" for many of the beautiful embellishments of our gardens. Our author recites several useful hints on this subject, which I here subjoin:

"Another way in which a woman may make her labor extremely profitable, is the management of the garden. She may easily acquire skill and experience, and for my part I think she cannot

have a prettier amusement. If there were nothing to be got by it, it is worth a little labor to have the view from your cottage window ornamented with roses, honey-suckles, stocks, and mignonette, instead of seeing a heap of rubbish, or a slough, or a plantation of thistles and stinging nettles. But, let me tell you there is something to be got by it. If you live near a market town, and have a turn for gardening, I do not know of a better thing for a woman to turn her hand to. If proper pains be taken with a flower bed, (and I know of nothing that yields profit without taking pains, except it be money in the funds, and the likely way to have that, is by taking pains with little things that produce it,) a flower bed well managed, will furnish you (besides supplying your bees, which under such favorable circumstances you will of course keep,) more than half the year with four or six nosegays a week, which may be sold to advantage. Suppose they bring you but three pence a week all the year round—thirteen shillings—it will buy your husband a new hat, or your child a warm coat. But this is not all—you will save some seeds of your annuals, and more than you want to stock your garden for the next year. These you will carefully separate and mark, keeping them from frost and rain in the winter, and then, in March or April, when people begin to think of flower seeds, do them up in penny or two-penny packets, and display them for sale. If you sell but two or three shillings worth, they will buy what lazy, shiftless people are often distressed for."

[The author then proceeds to show that a considerable profit arises from the cultivation of perennials, especially tulips, and further states that, in six or seven years, her own stock of these splendid flowers increased from about two dozen bulbs to eight hundred.]

PINE LANDS—PINE LUMBER.

There is perhaps, no subject in which the public are more deeply interested, or in proportion to that interest, on which it is less informed, than of the sources, quantity, and probable duration of the supply of White Pine Lumber. It is no uncommon occurrence to hear merchants and business men predict the rise and fall of various articles of merchandise and produce within the range of their business, and we are aware that they predicate the opinion they advance, upon the knowledge they have acquired as to the means and extent of the supply, and the amount of the demand. But who is there that troubles himself to inquire how much pine timber there is in the United States? How long the supply will last?—what is the cause of its regular and rapid advance in price?—and will it continue to advance or will it diminish in value in years to come? We have been led to these remarks by some facts communicated to us by a friend, who has investigated the subject, and on whose statements we can rely.

It is known we presume, to most persons, that white or *pumkin pine* cannot be re-produced or grown, as the underbrush or second growth of pine forests, is always of a different species of wood. Thus we can see at a glance that the country or state which is once stripped of this timber can never again see its soil clothed with the same. With this fact before us together with

a knowledge of the extent of the annual consumption of this article, it can be no very difficult matter to arrive at a pretty accurate conclusion as to the time which the forests in the United States will supply the demands of the country. A few facts will show that we are not so well furnished as is generally supposed.

In all the states and territories connected with the Union, there are substantially but three states which have a 'surplus' of white pine to supply the enormous and increasing demand, which is yearly made by the other states and territories. These are New York, Pennsylvania and Maine. The latter (Maine) with her *twenty-five hundred* saw-mills, can hardly supply the New England states, and it is left for New York and Pennsylvania, to furnish the pine lumber for the great valley of the Mississippi, after deducting what is needed for the consumption of four millions of enterprising inhabitants within their own borders. We speak of course, in general terms, and in round numbers; we do not mean to say, that many of the states cannot supply their own wants to some extent for several years.

Allowing these statements to be true, we are now prepared for the question—

How long will the White Pine Forests in these states supply the demand?

It has been ascertained beyond a doubt, that there were floated on our canals, the Hudson, Mississippi, Susquehanna and Delaware rivers during the last year, nearly *six-hundred and fifty millions* of square feet of pine lumber! To supply this quantity, over 65 thousand acres of good pine lands have been stripped of every tree! If there are seven hundred thousand acres, even at this rate, without any increase, it will only last some ten or twelve years, and from the facts that have been gathered on this subject, we venture to say there is not white pine enough in the United States to supply the present consumption fifteen years! If any one can controvert this conclusion by facts, we shall be glad to hear from them. Ten years since, the pine lumber on the Allegany and Susquehanna, was from four to eight dollars a thousand feet; it is now from *ten to eighteen*, and large contracts at the latter were made last month for lumber, which is now on its way to Natchez and New Orleans; the markets for which it was purchased. When pine lumber is transported on the Mississippi and its tributaries, and pays *large* profits, can there be a supply nearer? With these hints we leave the subject for the present.—*Oneida Whig*.

Damage to Crops.—We learn from the Alabama papers that the cotton crops in the southern region of that State have suffered heavy damage from the ravages of worms and insects. It is discouraging to the industrious planters to see the products of their labor thus consumed before their eyes, or so materially lessened as to present to them the prospect of difficulties in meeting the engagements which their assiduity in the culture of their staple so justly entitled them to form. On this subject the Irwinton (Ala.) Herald says:

"Owing to the heat of the weather, the cotton has suffered severely. And what has not been parched by the sun has been sadly ravaged by the grasshopper-bill bug, and numerous other insects, the enemy of the planter's prosperity. The

probability of the crop proving short has had a slight effect on the mind of purchasers, and induces holders of the last year's crop to remain firm. A sale was effected of a lot of from middling to fair, at 11 cents."

The same paper informs us that the corn crop will be very abundant, a majority of those who last year grew cotton having devoted themselves to the former article.—*Nashville Banner*.

Messrs. Thomas & Son, Auctioneers, of this city, will hold an important sale on the twelfth of September, of thirty short-horned cattle which have just arrived from England. Colonel Powel, whose agricultural enterprise is well known, has lately induced Mr. Whitaker one of the most distinguished farmers of England, to send these cattle hither, under the assurance that being the best specimens of modern improved breeds, they would readily find purchasers. We have before us the *Herd Books*, published annually in England by an agricultural Society of British noblemen and gentlemen, which contain the pedigree and merits of the most select British cattle, and we remark among those whose portraits and histories are given, several of these identical animals, so that the excellence of the whole number is placed beyond doubt. We will not enforce on the minds of our agricultural readers the individual and national advantages of having well-stocked farms, but merely suggest to them, far and near, the propriety of giving this sale their earnest attention.—*Nat. (Phil.) Gazette*.

Geology of Virginia.—By an advertisement in the *Richmond Enquirer*, we perceive that the principal geologist and his assistants are actively prosecuting the survey in the Appalachian region, which lies between the Blue Ridge and the carboniferous rocks of the West. In the autumn a part of the corps will resume the examination of tide-water district.

The region which is at present the theatre of investigation, is divided into three districts—the Northern, the Middle, and the Southern.

Mr. Charles B. Hayden has charge of the Northern district.

Prof. James B. Rogers of the Middle.

Prof. W. E. A. Aiken of the Southern.

The principal geologist, Prof. W. B. Rogers, is employed in the three districts alternately, directing and knitting together the operations as they progress.

Niles' Register.—This valuable publication is to be transferred from Baltimore to Washington, on the first of September next.

We take this opportunity of saying something of the character of this publication, and its claims to the patronage of the community. As a political journal, the *Register* stands quite alone—it has no partizan character—its object is not to propagate the opinions of one man, or advocate the advancement of any one party, but to present from week to week, a judicious collection of facts and documents connected with, and tending to elucidate the political history and condition of the country. Too much praise cannot be given to the uniform judgment, and good sense, which have governed the conductors of the *Register* in the selection of its articles. The citizen will find

in it every thing necessary to give him a complete acquaintance with the spirit of the political world; and to the future historian, the Register will be an inestimable treasury of the most authentic and ample materials for the history of this country. The great popularity, and indeed authority which it has attained, both in this country and in Europe, attest that this is no exaggerated praise, and the unobtrusive character of its conductor is another proof if any other were needed, that its reputation depends exclusively upon its merits. We sincerely wish it, both for the benefit of the Editor and the community, a universal circulation.—*Charleston Mer.*

While Mr. Harrison Hatfield was grinding axes on a large grind stone, on the 4th, at Youngstown, Indiana, the stone broke into three parts, one of which hit him on the chest, and killed him instantly.

Numerous accidents of this kind have occurred within the past year, in our own vicinity, all of which, we are assured by a machinist in a neighboring town, might have been avoided by a simple method of hanging the stone, somewhat different from that generally practiced. Let the stone be first turned in *every part* with a most exact nicety; then, instead of passing a bar through its centre, let it be suspended by a couple of clasps, closely compressing its sides, and covering a very large portion of its surface. Grindstones hung in this manner, our informant says, though sufficiently heavy for every mechanical purpose, may be made to revolve with almost any degree of speed, with the most perfect safety.

[From the Silk Culturist.]

EDITORIAL CORRESPONDENCE.

Cincinnati, Ohio, June 2, 1837.

Dear Sir: I have commenced the silk culture three and a half miles above Cincinnati, on the Kentucky side, so far as to plant about 4000 *Morus Multicaulis* trees and cuttings, chiefly the latter, and feel fully persuaded that it is not only practicable, but highly profitable.

I am a subscriber to your Silk Culturist, and feel in common with many others, much indebted to it, or to you, for the large amount of practical information it conveys, and coming to us, as it does, more as a gift and a favor, than as an equivalent simply, for our little money. It is the culture of silk, and greatly through its agency, that will advance, hitherto unprecedented, the profits of agriculturists, and were it not for the flattering prospects which the silk culture presents, I could and would choose other pursuits than husbandry, far more profitable and less laborious. But, sir, I am now in favor of agriculture, especially silk agriculture, there being in the whole range of man's varied manual labor pursuits, none, considering all things, so innocent, moral and healthy.

I think the fall season, for transporting trees and eggs to the west, the safest, all things considered, as they are less liable to be detained in either winter or spring, much too long for their safety, and for the spring planting, which, I think, comes on earlier in the West than in New England.

Should any information I may acquire in the

silk culture be of some service in your columns, it will be communicated with pleasure, as I am much your debtor. My prospects in *Morus Multicaulis* planting and growing, thus far, are very encouraging, and I flatter myself that in a few weeks more, nothing will be wanting but the worm, (and that I will not despair of obtaining,) to enter forthwith upon the silk culture fully and completely.

I have only to add, I hope that you will be exempt from the usual fate of those who lead the van in benefitting mankind, viz. do the good, whilst others shall reap the benefit.

THOS. H. ARMSTRONG,

Elm Spring place, Kentucky, near Cincinnati.

By the Editor. It is cheering to us to learn, that our labors have been beneficial to our fellow men, and we hope the foregoing, and many other assurances of the fact, will prompt us to greater diligence, in their service. Believing, as we honestly do, that the culture of silk is the most profitable branch of business in which the rural economist can engage, we are solicitous that every farmer in the country should participate in the competence, happiness, and wealth which it cannot fail to confer upon all who perseveringly and understandingly engage in it. Our object, therefore, is, to circulate through the medium of the Culturist, such practical knowledge as will enable the common farmer to commence and pursue the business in such a manner as will ensure success. Should our object be ultimately accomplished the consciousness of having been in the smallest degree useful, will be an abundant reward for all our labors. Any information, therefore, which Mr. Armstrong may acquire, in the course of his experience, will be thankfully received—not, however, in the discharge of any indebtedness to us, for none exists, but as the voluntary contribution of a co-operator in the great national work in which we are engaged.

Bloomfield, June 19, 1837.

F. G. Comstock, Esq.—Sir:

Have just returned from a tour through the northern part of Pennsylvania. Find them considerably interested in the business of *silk growing*. Many stand ready to go into it, *mind and purse*, the moment they can procure trees. I think the Wyoming valley well adapted to the growth of the mulberry tree, and hope, ere long, to see its inhabitants engaged in it thoroughly. Truly, yours,

L. NEWBERRY.

Fredonia, Licking Co. Ohio, May 8, 1837.

F. G. Comstock, Esq.—Sir:

The silk business is taking the attention of a number of our farmers, and several have commenced putting out trees for that purpose. Yours, respectfully,

J. S. DUDEN.

Tiverton, Coshocton Co., Ohio, June 6, 1837.

Mr. Comstock—Dear sir:

I have 2500 white mulberry trees, three years old, and 6000 cuttings planted this spring, doing well; one Chinese mulberry, or *multicaulis*, now bearing fruit, which is 3 years old. Some of the same I have planted down, by undermining the roots on one side, and covering the tree entirely about two inches deep, which are now sending up shoots from every bud. I have 100 cuttings, doing well, with 80 last year layers, and hope, in

a year or two to be able to supply others. I might have increased my stock to thousands before now, if I had known how to manage. My Chinese mulberry trees have stood the hard frosts of the three last winters without injury. * * * *

Yours affectionately, ISAAC B. HART.

American silk.—We have received a beautiful specimen of American Sewing Silk, manufactured from the native Mulberry and reeled and twisted on a common wheel, by a Lady of this County, who had never before attempted any such work. This proves the extreme simplicity of the manufacture; that expensive houses, and fixtures, are not necessary for that moderate quantity of silk which a great majority of our farmers could raise, by patient industry applied to the plain and simple means within their reach.—*Leesburg Gen. Lib.*

IMPORTANT SALE OF IMPORTED SHORT HORNED CATTLE AT PHILADELPHIA.

On TUESDAY, 12th Sept. 1837, at 11 o'clock in the morning, will be sold at public sale by catalogue, at Powelton, about one mile from the city of Philadelphia, 33 HEAD of Mr. Whitaker's improved short horned CATTLE, viz. 18 COWS and 15 BULLS.

These cattle were shipped from England at the suggestion of Col. John Hare Powel, when he examined Mr. Whitaker's stock in September last, and are well worthy of attention.

M. THOMAS & SON, Aucs.

Philadelphia, Aug. 1837.

A catalogue with the pedigrees, &c. may be seen at the office of the Farmer and Gardener.

At the same time will be sold a thorough bred SPANISH JACK, imported from Spain in 1836. Also a three year old Jack, and four very superior Jennets.

au 22

2t

WHITE TURKEYS, GEESE AND PIGS.

THE subscriber has for sale a few pair of pure White Turkeys, large Westphalia white Geese, and Barnitz white Pigs, which will be sent to order, cooped and furnished with feed suitable for a voyage, at \$10 a pair for the latter, and \$5 a pair for the two former.

ROBT. SINCLAIR,

au 7 4t At Clairmont Nursery, near Baltimore.

MARYLAND AGRICULTURAL REPOSITORY, CONDUCTED BY ROBERT SINCLAIR, Jr. & CO.

Light near Pratt street, Baltimore.

This establishment comprises one of the most perfect establishments in the country, and may be said to form a complete Agricultural and Horticultural Museum. It embraces a choice and full assortment of implements in every department connected with the business of husbandry and gardening, as

AGRICULTURAL IMPLEMENTS of all kinds, MACHINES and TOOLS of every description, suitable for farmers, planters and gardeners, Field, Garden and Flower SEEDS—These have been selected with great care from all the great seed marts in Europe and America.

Their accommodations consist of a suite of several rooms, fitted up in superior style for the accommodation of customers and the display of their goods.

Their stock of GRASS and GRAIN Seeds has been selected with much care, and is now full and complete, and as they always intend to keep such an assortment as will command a preference, agriculturists may at all times rely upon being satisfactorily supplied with seeds of the best sorts and always fresh.

They have, and always keep on hand, several varieties of Seed Potatoes.

Connected with their establishment is the extensive NURSERY of R. Sinclair, sr. where fruit and ornamental trees of all kinds, and plants, exotic and native, can always be procured. The fruit trees sold by them are warranted to produce fruit to correspond with the representation thereof.

au 22

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected from A. & D. A.

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 50	7 50
CORN, yellow.....	bushel	93	95
White,.....	"		102
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		13½
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 75	9 00
" wagon price,	"	8 25	
City Mills, super.....	"	8 00	8 25
" extra	"	8 50	
Susquehanna,.....	"	9 37	
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhds.	hhd.	24 00	
do. in bbls.	bbl.	4 50	
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 00	2 50
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"	75	1 00
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 75	6 87
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	36	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	87	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	3 87	
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	70	75
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappry, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,....	"	8 00	10 00
" good yellow,....	"	8 00	12 00
" fine yellow,....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 75	1 80
Red, best.....	"	1 60	1 65
Maryland inferior	"	1 10	1 55
WHISKEY, 1st pf. in bbls.....	gallon.	34	35
" in hhds.....	"		33
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh,.	100lbs	1 75	
To Wheeling,.....	"	2 00	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.		13½
Shoulders,.... do.....	"		11
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	10	10½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....par		Farmers Bank of Virgin. 2
Branch at Baltimore,....do		Bank of Virginia,.... do
Other Branches,.....do		Branch at Fredericksburg do
MARYLAND.		
Banks in Baltimore,....par		Petersburg,.....do
Hagerstown,.....do		Norfolk,.....do
Frederick,.....do		Winchester,.....do
Westminster,.....do		Lynchburg,.....do
Farmers' Bank of Mary'd, do		Danville,.....do
Do. payable at Easton,.... 1		Bank of the Valley,.... 2
Salisbury,.... 2 per ct. dis.		Branch at Romney,.... 2½
Cumberland,..... 3		Do. Charlestown,.... 2
Millington,.....do		Do. Leesburg,..... 2
DISTRICT.		
Washington,.....		Wheeling Banks,.... 4
Georgetown,.....		Ohio Banks, generally 6a7
Alexandria,.....		New Jersey Banks gen. 5
PENNSYLVANIA.		
Philadelphia,.....do		New York City,..... 1
Chambersburg,.....do		New York State,.... 3a4
Gettysburg,.....do		Massachusetts,.... 3a3½
Pittsburg,.....do		Connecticut,.... 3a3½
York,.....do		New Hampshire,.... 3a3½
Other Pennsylvania Bks. 4		Maine,..... 3a3½
Delaware [under \$5].... 6		Rhode Island,.... 3a3½
Do. [over \$5]..... 2		North Carolina,.... 6
Michigan Banks,.....10		South Carolina,.... 8a10
Canadian do.....10½		Georgia,..... do
		New Orleans,..... 15

CABBAGE SEED, &c.

FOR SUMMER AND FALL SOWING.

Just received, an additional lot of Early York Cabbage Seed of the Scotch short stalk variety, imported from Edinburgh. This cabbage is full as early as the English Early York, larger head, very dwarf, and is decidedly superior to all early cabbage seed for fall sowing. Also, Early dwarf Paris, Early Battersea, Early George, Bullocks-heart, Flat Dutch, Savoy and other Cabbage Seeds. Large Holland Cauliflower, and Kale Seed, of various sorts, among which is the Delaware Kale, the best sort for fall sowing, color dark green, tinged with purple, the leaf tender and curled.

IN STORE,

Corn Salad, Curled Endive, early Curled Cilicia, brown Dutch and large white head Cabbage Lettuce seeds; black and white Spanish and yellow Turnip Radish seed for fall sowing, the latter a superior sort, and will produce well if sown at any season of the year.

Will be in store in a few days, the Pye Plant or Tart Rhubarb seed, producing a very choice vegetable, and should be cultivated in every garden.

ROBT. SINCLAIR, jr. & CO.

Light, near Pratt street wharf.

aug 22

A R V P 2a 3w

3w

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

A BROOD MARE & TWO COLTS

FOR SALE.

The subscriber is authorised to sell a brood MARE with her two foals—the mare is half sister to Bachelor, her eldest colt now rising one year old is by Messenger, a full blooded horse, the other was dropped the last spring, is by Young Tom, one of the purest of the Tom blood in the country, and is himself one of the fastest trotters and rackers any where to be found. EDW. P. ROBERTS, au 29 4t Baltimore, Md.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Superior Grain Cradles
Weldron Grain and Grass Scythes
Farwell's Patent Double Back Grass Scythes and Snathes
Hay Forks and Rakes
Manure Forks, Shovels, &c.
English Corn Hoes
Superior American made Castee Hoes, with handles
Wheat FANS, of various sizes
Mattocks, Picks and Grubbing Hoes
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All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.
Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
Jy 4 J. S. EASTMAN.

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the plate 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

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THE FARMER & GARDENER

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BALTIMORE, MD. SEPTEMBER 5, 1837.

Vol. IV.

THIS publication is the successor of the late

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BALTIMORE: TUESDAY, SEPTEMBER 5, 1837.

SPRING WHEAT.

We learn that several gentlemen in Virginia, seeded the Italian Spring Wheat the past season, and we should be glad to hear of the success of the experiments severally made. Could not some of the editors with whom we exchange in that state, do us the favor to make the inquiry and publish the information they may obtain in their papers?

We have still a portion of the invoice of 140 bbls. to arrive to us undisposed of; but from the rapidity with which orders come to hand, we think it advisable that those who may desire to make the experiment of its culture, should take time by the forelock, as a day's delay may lose them the chance of a supply through our agency.

A GOOD CHANCE FOR A SILK CULTURIST.

A gentleman residing on the eastern shore of this state, who has a farm of 100 acres, situate in a healthy part of Cecil county, possessing soil and exposure which render it well adapted to the mulberry culture, requests us to say, that he will let it on highly favorable terms to any eastern agriculturist, who has a competent knowledge of the silk business, and will engage in it spiritedly, the owner to be interested therein. To a thrifty eastern farmer, this will afford a fine opportunity of engaging in this lucrative branch of rural industry under auspices which do not often present themselves. Besides the land requisite for a mulberry orchard, there is enough of arable land, which when subjected to yankee skill and management would doubtless yield a very handsome profit.

Letters, post paid, directed to the editor of this paper will be promptly referred to the proprietor of the farm, and meet with immediate attention.

THREE LARGE, VERY LARGE CALVES.

We were asked last Monday week by our friend of the *Fountain Inn*, Mr. George Beltzhoover, to accompany him to the Western Hay-scales to witness the weighing of three of his calves, and in that spirit of generous enthusiasm in the cause of the earth, which we trust will be the last feeling that departs from us, we accompanied him. Before we arrived, however, one of the calves mentioned below, had been weighed, viz: Hampton.

It may, perhaps, be well to mention the cause of this calf-weighing, and as the public have a right to know it, we shall take pleasure in narrating it. A gentleman, who does honor to the button he wears, a brave and generous tar, one whose courage in days past, we had the pleasure of witnessing—one to whom Baltimore, as much as to any other individual, if not more, owes her preservation—and who is now in the Revenue service of the United States, had been out to see the Herd of cattle, owned by, and at the farm of, Mr. George Beltzhoover. Here he saw several fine, very fine, nay, extraordinarily fine calves, of the *Improved Durham Short-horn breed*, and being struck with the fine appearance of one, he was induced to ask Mr. Beltzhoover's cow-herd, who by the bye, is a true artiste, what he thought she would weigh.—"400 pounds," answered her keeper, in as good Irish dialect as any gentleman might desire. "How old is she?" enquired he of the *Naval Button*.—"Five months some time this month."—"And she weigh 400 pounds?"—"Yes sir, as I think."—"I'll bet you a hat she does not," says the officer.—"Done," says the cow-herd, and so the bet was concluded without more ado.—Monday following was fixed upon as the day of test; and on that day instead of the calf whose weight was rendered a vexed question by the gallant son of war's want of faith, being brought in to the scales alone, Mr. Beltzhoover, to whom the cow-herd had communicated his bet, ordered him to bring in three of his oldest calves, in order that the weight of the *trio* might be accurately tested.

A few minutes before the contemplated hour of trial had arrived, we took a seat beside the gallant captain and our generous host of the *Fountain Inn*, and wended our way to the scene of peace-

ful controversy. Ere we had reached the destined point, the least of the calves had been weighed. We should, perhaps, reveal a secret of the prison house, which, was doubtless extorted through the combined fears and sense of candor of our good host of the *Fountain*. He stated that *John*, the familiar name by which our accomplished cow-herd—for accomplished let us call him, is designated by his employer, had departed from his usual rule of feeding the day before, and instead of two feedings, as was his wont, had given the calf three.—This was a source of amusement as our vehicle rolled onward; but whether to forestall defeat, or from what other cause we know not, and will not therefore, venture upon a surmise, Mr. Beltzhoover advanced the opinion that he thought *John* would lose. This confession, proceeding as it did from a sincere heart, no doubt, encouraged the "Son of the Sea," and he as in duty bound, was as sure of a victory as he was when he opened his "Six Gun Battery" upon the British in 1814, and drove them back in the midst of desolation from the theatre of their anticipated scene of glory.

But alas, how uncertain are all human calculations! Here was a most gallant and skilful Captain—one who had won from a city, a sword, as a token of its gratitude—from a state another as a memorial of her pride, that he was her son,—beaten—and beaten by whom?—by an Irish peasant, a man whose proudest aspirations had never tempted him to stray, in his most ambitious moments, beyond the economy of a stable or barn!—What a lesson this should teach those who aspire beyond the destiny which nature intended for them! If our gallant Captain had been called upon to martial a fleet, and lead it into the fight, he would most certainly, have reflected honor upon his calling; for there is none, who with more skill could have conceived a plan, or led his vessels into battle, with greater certainty of victory—glorious victory—but then, not content with moving in his appropriate sphere, he trusted to the universality of his genius, and lo! he met with a most sad and disastrous discomfiture; for the Irish man, with all his lack of mathematics, proved himself an "ugly customer"—and the hero of the "six gun battery" had to knock under

and acknowledge himself no judge of calf-flesh. But we must confess that his acknowledgment was made with a most courteous bearing, one which enhanced the prize to the victor, and made it more valuable than gold seven times purified.

But let us, in the language of one whom we loved while living for his *learning*, his *uncompromising honor*, his *unflinching courage*, and his *noble daring*, return from "*circumlocutory discussion*" to the object of this notice, from which we have been diverted by a train of thoughts which it would have been worse than treason to resist. We set out to record the weights of "*three large, very large calves*," and here it is, respectively set down. To begin *first* with

Nancy Thompson, calved in March last at Hampton, the farm of John Ridgely, Esq. presented by Rezin D. Shepherd, Esq., a gentleman of means and of soul, to the late Henry Thompson, Esq. and by him to Mr. George Beltzhoover, who every body knows who loves a good dinner, or a good fellow. But what shall we say of Henry Thompson? Why, that he was a gentleman, a good citizen, a patriot, and a man, whose heart was in the right place. When we have said this, we think we have pronounced a more perfect eulogium than if we had written a volume. It was Henry Thompson who presented Nancy Thompson, to George Beltzhoover, and the simple fact, is, perhaps the best pedigree that could be written of her, and the more especially, as she was, by his own request, named after his only daughter.

Nancy Thompson, then, being calved in March, is rising 5 months old: she weighed 527 lbs.

2d. Young Hamlet, was calved April 11th, 1827, and was consequently 4 months old on the 11th August last: he weighed 450 lbs.

3d. Hampton, was calved 4th May, 1837, and was consequently 3 months old on the 4th of August. Hampton weighed 380 lbs.

To say that these are *fine* calves, is to play the niggard with our *praise*, the which we are not disposed to do, for unto Cæsar we will give the things that are Cæsars, in despite of the criticism of Hypocrites, and the sneers of men, whose souls might be compressed into an ant's eye.—They are *extraordinary* calves, and demonstrate with a reasoning and logic, clearer than that of Locke, that American agriculturists stand in their own lights if they longer delay to improve our native breed with this thrice noble and generous stock—and here let us tell them that they are without alloy, except that which George Colling gave them—pure and unadulterate Improved Darham Short-horn.

SPRING WHEAT.

A gentleman in Western New York, writes us under date of August 9, as follows:

"The Italian is a white chaff bearded wheat, and is sown early in the spring. Our crop of it this year is as fine looking as the earth ever bore. It is really a great delight to ride through our vicinity and view it."

Another in Shenandoah county, Va. under date August 23, says:

"I am so pleased with my success in raising spring wheat, that I have concluded to embrace the opportunity offered through you, of increasing the quantity of my seed.

"I got $1\frac{1}{2}$ bushels of wheat weighing 62 lbs. to the bushel."

This gentleman sowed 5 lbs. of seed, consequently his yield was 18 to one sown.

The following notice we extract from the *Winchester Republican* of August 28th, and thanking its intelligent editor for the kind manner in which he has spoken of ourself, we commend his article to the attention of our readers:

SPRING WHEAT.

We do not recollect to have seen any account of the recent experiments with Italian or Spring Wheat, which has succeeded so well as that of Mr. David Hollingsworth, in this neighborhood. This gentleman sowed early in the Spring about *seven-eighths of a bushel* in about an acre of ground, which produced *twenty or twenty-five bushels* of handsome, well-filled grain, weighing from sixty to sixty-two pounds to the bushel, this being about the weight of the seed. The ground used was rocky and very badly prepared, so much so that Mr. H. was almost deterred from sowing—indeed, had he obtained ten or twelve bushels, the experiment would have succeeded beyond his expectations, so unfavorable were the circumstances under which the seed were committed to the ground.

The result of this experiment also proves that the Spring Wheat is not so apt to be affected by rust as the common—for while the wheat is the same and adjoining fields was somewhat blighted this was not at all injured although the ground was lower, the straw preserving its beautiful yellow color.

It has been doubted by many intelligent farmers whether this kind of wheat would branch well before coming to maturity. This has also been decided favorably; in the case in which we speak a single grain producing from ten to twelve stalks—an important result, as thereby much expense will be saved in seed.

From the success which has attended this and similar experiments, it cannot be doubted that a new era has arisen in the cultivation of this necessary of life, from which the greatest advantage are to result to the farming interest of this country. It has been the custom of our farmers, when their winter grain failed, to re-plough their fields in the Spring and plant oats, &c. Now, should it fail, they can make use of the Spring Wheat with a reasonable hope of raising a good crop of wheat as of other grain—indeed, we shall not be

surprised if it is made to supersede, in a great measure, the oat crop, it requiring no more labor.

Farmers who may wish to procure seed can do so by an early application to E. P. Roberts, Esq., editor of the *Farmer and Gardener*, Baltimore, who has been appointed agent for the sale of above 140 barrels. It will be cleansed with great care, put up in tight barrels, and sold in lots of one or more barrels, at \$3 50 per bushel, each barrel containing about three bushels and a half. From our knowledge of the ability of Mr. Roberts of judging in the matter of this kind, we will state that any person wishing to purchase seed wheat may depend upon its quality being precisely what it is stated by him to be.

Extraordinary Wheat.—Since the above was written, we have received the following communication from a friend.

Mr. Editor—Permit me, through the medium of your interesting paper, to introduce to the consideration of the public a most singular and prolific species of Spring Wheat. Two years ago, Mr. Jeremiah Bowling of this place received fifteen grains of this wheat from a distant part of the Union, which he sowed last Spring a year, the result of which was sufficient to induce him to save what he had reaped for seed for another year. Last Spring, after giving a small quantity to a few of his friends, he sowed what remained of the product of the fifteen grains, which produced, when gathered, a half bushel and a half peck—the half bushel weighed thirty-three pounds. Some persons may consider this yield almost incredible, but all surprise as to this point must cease, since it is known as an established fact, that more than forty stalks have sprung from one grain. The growth of this wheat is exceedingly luxuriant and rapid, and its blade and stalk are fully as strong and heavy as Rye or Barley. The grain is about twice the size of the common wheat, and is of a white and flinty nature. I am of the opinion, and I think every practical farmer will also be convinced, when he sees the peculiar energy of its growth, that it possesses in its nature a power which will always shield and defend it against the ravages of the fly—that greatest scourge which has ever visited our fair and fertile Valley. I hope that the attention of the farming community will be directed to this new species of wheat, for I conceive that no pains ought to be esteemed too great to restore to our country that abundant prosperity, for which our farmers now so patiently and so ardently labor.

AN OBSERVER.

[*The wheat here spoken of must be the *Barbary* wheat. We sowed this spring about half a gill of it, which we obtained through the kindness of a friend, but not a single grain of it came up, owing we presume to its vegetative powers being destroyed by long exposure to dampness in its protracted voyage to this country. Without any exception it was the largest and best looking variety of wheat we ever beheld, which added no little to our mortification at its not vegetating.]

WORK FOR SEPTEMBER.

ON THE FARM.

It may not be amiss to remind the farmer, who may not have gotten out his small grain, that a just economy would point to his doing so at the earliest possible period; for he may rest assured that in nine times out of ten he will find his interest promoted by being in a situation to avail himself promptly of any favorable change in the markets that may occur, as opportunities frequently present themselves wherein even a few days make a material difference in the price of agricultural commodities. With this brief suggestion, we will proceed to the detail of those labors which are of urgent necessity.

Wheat.—Although it be too early to seed this grain, it is not too early to begin to flush up the ground and to make the other preliminary arrangements. Wherever clover-leys or grass-swards are to be turned in, the farmer should by all means, if the ground has not been previously dressed with them, provide himself with a light covering of lime, marl, or other calcareous matter, for it is a truth which cannot be controverted, that wheat thrives best on soils which have been thus dosed, and that they derive from such treatment increased ability to resist winter frosts.

Preparation of the seed.—No wheat however clean or beautiful should be sown without being soaked in a pickle of strong ley, brine, strong enough to float an egg, or lime water, and after being drained, should be rolled in powdered lime.

Quantity to the acre.—This is a vexed question, and one which every farmer takes the liberty of settling according to his own views of propriety. Amidst such diversity of opinion and practice, it is difficult to prescribe; but still we may approximate something like a proper quantity by comparing the practice of our own and other countries. Some persons in this country sow as small a quantity as 1 bushel to the acre, while others put in 5 and 6 pecks. In England, however, where the statute acre is of the same measure of our own, from two to three bushels to the acre are sown on an acre. If this large quantity be necessary there—if they derive good crops under such thick sowing, it strikes us as being obviously plain, that too little seed is often given to the earth in this country, where, from the intensity of our winters, and from the sudden alternations of the weather, much grain is thrown out of the ground. Should we not make an allowance for such casualties? We know that an opinion prevails, that owing to the inferiority of our lands to that of England, they will not bear as heavy seeding

as those of that country. On the other hand, it is a well ascertained fact that rich, warm and generous soils *retain* the plants better through the winter than poor lands, and we would here ask, should not an allowance be made on that account for the losses thus sustained on poor lands? If wheat stands *thin* on the ground, the vacant places are invariably filled with noxious weeds, whose room had better be occupied with wheat plants. Viewing the subject in these lights, with the aid of our best judgment, we have come to the conclusion, that *two bushels of seed* to the acre of winter wheat, is not too much, and that less than 6 or 7 pecks should never be sown.

By sowing too thin, the growth of weeds is encouraged to the great detriment of the growing crop and the loss of the owner. To guard against this, the English husbandman very properly fills up his ground with plants of wheat, increases its yield, and excludes the growth of weeds and grass.

Rye.—It is a custom with many good farmers to sow their rye even as early as August; with most to put it in during this month, while others defer it until October. The question of which is the best time, though often mooted, has never yet been settled. It perhaps, would be safest to get it in as early this month as possible, in order that the plants might have time to be well rooted before the rigor of winter sets in.

Quantity of seed.—We think that less than 6 pecks to the acre should not be sown.

Preparation of the seed.—Subject your seed to the same preparation as recommended for wheat.

Gathering of weeds.—Great benefit would result from a careful collection of all weeds, which should be put upon your manure heap and covered over. Weeds thus treated will make about one third their bulk of good manure when decomposed, and indeed if one cart load of good mould or earth were placed over every three loads of weeds, the proportion would be greater, as the exhalations from the latter while undergoing the process of decomposition, would become incorporated with the mould or earth, and make it as valuable as any other portion of your dung pile.

Pulling fodder and cutting tops.—These operations must be performed this month, and we need not tell you that the less the fodder and tops be subjected to the weather after being dry, the more valuable they will prove as provender for your stock.

Rag-weed.—If you have a field on which there is a full crop of this weed, have it cut down and

dry the weed for hay. As soon as dried stack it away, and sprinkle salt between each layer, in about the proportion of one peck to the ton.—This weed when thus cured makes a most acceptable and nutritious food for cattle and sheep, and greatly contributes towards the saving of more valuable provender.

Grasses.—During the early part of this month sow your *Timothy*, *Burnet* and *Rye grass* seed.

Quantity of seed.—*Timothy*, 1 peck to the acre: *Burnet*, from 16 to 20 quarts to the acre: *Rye grass*, 2 bushels to the acre.

Manure.—As manure is the farmer's gold-mine be careful in adding to, and economising yours. Gather all your early potato tops, weeds of every description, turf, loam, and indeed every kind of vegetable offal, let these be thrown into your hog pen, where they will not only contribute to the support of your swine, but the latter will prepare them for your dung pile, where, after undergoing the process of manipulation by your hogs, they should be placed once a week, taking the precaution of covering them carefully over with earth of some kind several inches deep. By attention to this, you will increase the quantity and quality of your manure to a great extent, and in like proportion add to your means of improving your soil the next year.

CHILD'S ARTICLE FOR SHARPENING
RAZORS, &c.

I like a really good thing, and when I get hold of a genuine article, I enjoy it so much that I wish my friends the same pleasure. Now, he who likes a keen razor—and who in the name of wonder does not?—will step to Mr. J. GOULD'S, Market street, and obtain a box of Child's patent *pulvis*, for sharpening razors, &c. In recommending it, I must say that it is the only article of the kind, I have ever used, that completely fulfils the purposes for which it is made, and I hope the reader will not take my word for it, when a demonstration is so easy and productive of so much comfort. C.

Important Discovery in purifying Gold Sand.—Our Virginia, Carolina, and other gold mine proprietors, will probably like to know that the *Gazette of Commerce of St. Petersburg*, has just published the results of important experiments made at the mines of Zlatoust, on the different methods of extraction, by washing, the amalgam and acids. Col. Anassoff of the corps of mining engineers, conceived the fortunate thought of melting the sands, to extract first, the iron on the belief that the grains of gold were chiefly mingled with the oxide of iron in the sands. The results are these: It is found the amalgam yielded eight times more gold than the washing; the moist way by acids ten times more, and the melting of 2800 puds of sand yield twenty-nine times more. These experiments are to be carried on upon a still greater scale throughout the line of Oural mountains.—*N. Y. Star.*

VALUE OF APPLES FOR STOCK.

The following facts, communicated to a late meeting of the Hartford County Temperance Society, are as interesting and important to the friends of agriculture as they are to the friends of temperance. We have long believed that cider, at the price it ordinarily is sold for in the market, does not warrant the labor and expense attending it; and have doubted whether any, but the choicest, varieties of the apple, could be cultivated and disposed of in such a manner as to yield a profit. Previous experiments have satisfied us that apples are worth more for food than for cider; but we were not aware that the balance was so great in favor of the former. The facts, however, communicated by Mr. Clark show it to be so, and his well known character for integrity and intelligence is a sufficient guaranty for their correctness.

"Joel Clark, Esq. of East Granby in 1835, for the first time instituted an experiment for testing the value of apples for food for horses, and for fattening swine and bees. At this time he was altogether incredulous upon the subject. The result was conclusive proof to his own mind of their being decidedly beneficial. The present year he has pursued the same experiment with precisely the same results. Last year he slaughtered two hogs, which weighed a little over 400 lbs. This year he has slaughtered the same number, a smaller sized animal, one weighing 348 pounds and the other 328 pounds. They were fed, in both cases, exclusively on raw apples, sour and sweet promiscuously, until a short period before being butchered, and the pork is of the first quality. In August last he discontinued the milking of a cow, which he had designated for fattening and turned her into the summer pasture with his young stock. On the first of October he removed her to rowen feed, and commenced feeding with apples. The most she would have commanded in market at this time was 13 or 14 dollars. He kept her seven weeks, giving her night and morning as many apples as she would eat, which was just about a bushel a day. The thrift was such as to excite the particular notice of himself and hired man, and equal that of any animal on any kind of feed. At the expiration of the seven weeks he sold her; and to be still better able to know the result of his experiment, he rode four miles to see her slaughtered. A better beef is seldom found than this proved to be. He received \$28.30 for her, that is, \$14.30 gain for seven weeks or, allowing \$2.30 for pasturing, about two shillings a week, he received \$12.00 for the 50 bushels of apples, or 24 cents per bushel. Now these 50 bushels of apples converted into cider, would yield six barrels. These, in 1835 delivered at the distillery, would have commanded from 42 to 50 cents per barrel—say \$3 for the whole. In 1836, the same delivery at the distillery, would command from 75 to 80 cents; say however, \$6 for the whole. According to the last computation then, there is a gain of \$6 in \$12 in favor of feeding apples. He fed at the same time, and in the same manner, a two year old heifer, and with results more favorable, rather than less. Though not the largest of his herd, she weighed, on being slaughtered, 573 pounds. What farmer, who understands at all the article of profit and loss in the use of the products of his farm, and consults his pecuniary interests simply, will not be surprised to

hear that this gentleman has commenced operations for constructing a cellar under his barn, for the purpose of preserving his apples for feeding his stock during winter.

His orchards have produced 150 barrels of cider, and even more in a year which he has sold to the distiller for 50 cents a barrel, because he knew no more profitable manner of disposing of it. Now, the quantity of apples necessary to make 150 barrels of cider upon the above estimate, would, yield according to the results of his experiment in feeding, this year, \$300—making a difference of \$225, no trifle, surely, in the profits of one man's orchard; or, if you value the cider at \$1 per barrel, the difference is \$150.—*Silk Cultivator.*

[From the Norristown Herald and Free Press.]

CANADA THISTLE.

The Canada Thistle, which is so troublesome to the farmers of the northern states, is now found growing upon at least four farms within the townships of Plymouth and Whitmarsh, and it is reasonable to suppose that upon examination, it would be found in other parts of the country. This thistle is rather smaller and much more slender than the other species found here. The stalk being about a quarter (and always less than an half) inch in diameter, generally between one and two feet in height, the leaves are more clustered, puckered and prickly than any common species. It is perennial by its root, which extends downward about a foot, and then gives lateral shoots, from which suckers arise, forming new plants, which again extend in the same way. Upon a plantation in Plymouth, a patch about fifty feet square was found nearly covered with this thistle the whole of which the proprietor supposes to have originated from a single seed. The field was sown about five years ago with timothy seed, brought from New York state, where the repulsive weed is abundant. The thistles did not obtain any notice till last year, when they were observed, but not being supposed to be more hurtful than the common species, no effective means were used to destroy them, and they are now supposed to occupy twice the space they did at that time. The introduction of this plant should be matter of serious concern to our farmers and land holders, as a plantation upon which large quantities of these plants were produced, would probably not sell or rent for half the usual price for such property clear of them. Endeavors have been made in New York to obtain legislative enactments, requiring every person to destroy them upon his premises, and in default thereof to render it obligatory on certain officers to cause them to be destroyed upon the lands of such defaulters, and the cost of doing so to be charged to the owner of said lands.—Although the act was not passed, the asking for it is an evidence of the public feeling upon the subject. A few years ago a notice was in some of the county papers by a gentleman formerly a resident in New York state, now of Delaware county, strongly cautioning farmers and others against introducing timothy seed from New York or other places where this plant abounds, on account of the danger of introducing it in that way. This caution should be attended to by all who are engaged in procuring seeds for sale or use, and close attention should be given to destroy those

plants wherever they may be found in our country, and to prevent their further introduction and dissemination. There is great difficulty in destroying these plants where then have obtained possession of the soil, and much has been written upon the subject, to which I must refer those who are so unfortunate as to have occasion for that knowledge, noticing however, the fact, that ploughing has been found to be calculated rather to extend than to lessen the evil. I give the specific distinction from Eaton. "*Cnicus Arvense, Canada Thistle, purple flowers in June, plant perennial by the root, leaves sessile pinnatifid ciliate spinose—stem panicled, calyx ovate, mucronate scales broad lanceolate, close pressed, margin woolly.*"

A. W. C.

[From the Genesee Farmer.]

THE BOT FLY.

This is the name of an insect well known to farmers in its appearance, and its influence is not unfrequently felt in the destruction of that most useful and noble of animals the horse. Horses, oxen and sheep, have each a peculiar species of gad fly, their natural enemy, which deposits an egg on the hair of the horse, beneath the skin of the cow or ox, and in the nostril of the sheep or deer, and in these various ways the race is propagated and perpetuated. The horse fly is well known, from its turned up extremity of its body, its perseverance in depositing its eggs, or nits, as some call them, and the dread which the horse manifests of its approach or presence.

The history of the progress and transformation of the common bot fly, is simple and easily understood. The fly, deposits its eggs on the hair of the horse in such a situation that in licking himself more or less of them will come in contact with his tongue, the warmth and moisture instantly hatches them; they remain attached to the surface of the tongue until they are swallowed with the saliva and food in the stomach; here they pass the larva and chrysalis state, and when voided by the animal, are soon ready for the final transformation to the perfect insect.

Some farmers have doubted whether the egg could be hatched in this way; but all on the matter may be put at rest, by moistening the hand with spittle and passing it slowly over the matured egg, or by scraping them occasionally from those places most liable to be bit or licked by the animal, or by washing the legs at times with such substances as will destroy the nits without injuring the horse. This decoction of tobacco will do, as will the smoothing down the hair with a rag moistened with spirits of turpentine. In either case there is no necessity for a profuse application, as the egg only requires to be wet, and these are always near the outer extremity of the hairs. The months of August and September are those in which the bot fly is most active; and a little care and attention to his habits at this time, will prevent much injury and suffering to the horse, if not eventually his total loss.

Columbian Horticultural Society.—An adjourned meeting of this Society was held in the Aldermen's Room recently, pursuant to public notice. Some very beautiful dahlias were exhibited from the collections of Mr. Peirce and Mr. Hoppe. In the former, we noticed the Lord Liv-

erpool, the Alba Fimbriata, the Bella Donna, Hislop's King of the Yellows, Magician (a seedling raised in 1836, not yet fully developed,) the Justina, the Queen of Wirtemberg, and La Brillante. All these dahlias were in excellent order. Mr. Hoppe's bouquet of dahlias was much admired.

Dr. Gunnell sent three species of Cactus, which were also very beautiful and greatly admired: the Cactus Jenkensonii, Flagelliformis, and Speciosus.

A dish of fine large amber Cherries was sent by a lady; also a dish of Filberts of the last year's growth. Mr. J. A. Smith exhibited the following varieties of very fine Cherries: the Black Tartarean German Duke, or Mammoth Ox Heart, and Duke. Mr. J. F. Callan and Mr. Keller exhibited species of Raspberries of good flavor. There was also a specimen of ripe Currants from Callan. A good specimen of early Potatoes was exhibited by Mrs. Seaton. After the meeting had spent some time in reviewing the flowers, fruits and vegetables, on the table, the following gentlemen were elected officers of the Columbian Horticultural Society.

President, NATHAN TOWSON.

1st Vice President, (for the city of Washington,) RICHARD S. COXE.

2d Vice President (for the county of Washington) ROBERT BARNARD.

3d Vice President (for Georgetown) ROBERT DICK.

Treasurer, J. F. CALLAN, in the place of W. Hewitt, Esq. resigned.

Corresponding Secretary, GEORGE WATTESTON.

Recording Secretary, WILLIAM THOMPSON, in place of W. Hickey, Esq. resigned.

COUNCIL.

Agg, John	Kearney, James
Boyle, John	McWilliams, Alex.
Buist, Wm.	Rich, William
Cammack, Wm	Riley, Joshua
Gunnol, J. S.	Seaton, W. W.
Gordon, W. A.	Shoemaker, George
Hall, D. A.	Smith, John A.
Jones, Thomas P.	Suter, Alexander

ON THE SYSTEMS OF CROPPING KITCHEN GARDENS ADOPTED BY THE BEST PRIVATE AND COMMERCIAL GARDENERS; WITH AN ATTEMPT TO REDUCE THEM TO FIXED PRINCIPLES.

The subject of cropping the ground in kitchen gardens embraces the preparation of the soil, the insertion of the seeds of plants, their after culture, the gathering of the crop, and system according to which one crop is made to succeed another. As the discussion of all these points, however, would involve the repetition of what is already well known to every gardener, the article now submitted to the reader, and for which his indulgence is entreated, is limited to what is properly called cropping, or succession of crops. Crops in kitchen gardens, are put in the ground according to three distinct plans or systems, which may be termed successional cropping, simultaneous cropping, and permanent cropping.

Successional Cropping, is that in which the ground is wholly occupied with one crop at one time, to be succeeded by another crop, also wholly of one kind: for example, onions to be followed by winter turnips, or potatoes to be followed by borecole.

Simultaneous Cropping, is that in which several crops are all coming forward in the ground at the same time: for example, onions, lettuce, and radishes, sown broadcast; or peas, potatoes, brocoli, or spinach, sown in rows.

Permanent Cropping, is where a crop remains on the ground several years; such as sea-kale, rhubarb, asparagus, strawberries, &c.

To these modes might be added, *mixed ligneous and herbaceous cropping*, such as growing herbaceous crops among gooseberries, currants, raspberries, and other fruit shrubs, and among fruit trees. The practice of growing culinary crops among fruit shrubs is, however, nearly exploded in the best gardens, on account of the injury done to the shrubs when they are young and small, by the roots and shade of the culinary crops, and of the injury done to the culinary crops, when the shrubs are grown up, by the shade and confinement which they produce. For no the same reasons, cropping between trees is by means desirable in small gardens, where the trees must necessarily be at no great distance from each other, but in the case of very large gardens, such as those of commercial gardeners, where trees are planted in close rows at 20, 30, or 40 yards apart, so as to shelter the ground, the cropping may be carried on in the space between rows of trees, on the principles which regulate successional, simultaneous, or permanent cropping, in ground where there are neither trees or shrubs.

The object to be attained by a system of cropping is that of procuring the greatest quantity and the best quality of the desired kind of produce, at the least possible expense of labor, time, and manure; and, in order that this object may be effectually obtained, there are certain principles which ought to be adopted as guides. The chief of these is to be derived from a knowledge of what specific benefit or injury every culinary plant does to the soil, with reference to any culinary plant. It ought to be known whether particular plants injure the soil by exhausting it of particular principles; or whether, as has been lately conjectured by De Condolle, and, as some think, proved, the soil is rendered unfit for growth of the same or any allied species, by excretions from the roots of plants; while the same excretions, acting in the way of manure, add to the fitness of the soil for the production of other species. The prevailing opinion, as every one knows, has long been, that plants exhaust the soil, generally, of vegetable food, particularly of that kind of food which is peculiar to the species growing on it for the time being. For example; both potatoes and onions exhaust the soil generally, while the potatoe deprives it of something which is necessary to insure the production of good crops of potatoes, and the onion of something which is necessary for the reproduction of large crops of onions. According to the theory of De Condolle, both crops exhaust the soil generally, and both render it unfit for the repetition of the particular kind of crop; but this injury according to his hypothesis, is not effected by depriving the soil of the particular kind of nutriment requisite for the particular kind of species; but by excreting into it substances particular to the species with which it has been cropped, which substances render it unfit for having these crops

repeated. Both these theories, or rather, perhaps, hypotheses, are attended with some difficulty in the case of plants which remain a great many years on the same soil; as, for example, perennial-rooted herbaceous plants and trees. The difficulty, however, is got over in both systems; by the first, or old theory, the annual dropping and decay of the foliage is said to supply at once general nourishment, and particular nourishment; and by the second, or new theory the same dropping of the leaves, by the general nourishment which it supplies, is said to neutralize the particular excretions. It must be confessed that it is not very obvious how general nourishment, dropped on the surface of the soil, can neutralize the excrementitious matter deposited many feet beneath the surface; as in the case of long rooted herbaceous plants, like the saintfoin, lucerne, &c.; and deep rooting trees, such as the oak, &c. Nevertheless, we find that plants will remain a longer period on the same soil than others, the roots of which never go to any great depth beneath the surface; such as the fibrous-rooted grasses, the strawberry, &c., and the pine and fur tribe. We mention these things to show that, though it is not yet determined which is the true theory, yet that the fact of plants injuring or diminishing the fertility of the soil, both generally and particularly, does not admit of a doubt.

In the absence of principles founded on which ever of these hypotheses may be true, recourse is obliged to be had to rules drawn from the experience and observation of those who believe in the old theory. The rules, as adopted by the best gardeners, are as follows:

Crops of plants belonging to the same natural order or tribe, or to the natural order and tribe most nearly allied to them, should not follow each other. Thus, turnips should not follow any of the cabbage tribe, sea-kale, or horseradish.

Plants which draw their nourishment chiefly from the surface of the soil should not follow each other, but should alternate with those which draw their nourishment in great part from the subsoil. Hence, carrots and beets should not follow each other; nor onions and potatoes.

Plants which draw a great deal of nourishment from the soil should succeed, or be succeeded by, plants which draw less nourishment. Hence, a crop grown for its fruit, such as the pea; or for its roots or bulbs, such as the potato or the onion, should be followed by such as are grown solely for their leaves, such as the common borecole the celery, the lettuce, &c.

Plants which remain for several years on the soil, such as strawberries, rhubarb, asparagus, &c. should not be succeeded by other plants which remain a long time on the soil, but by crops of short duration; and the soil should be continued under such crops for as long a period as it remained under a permanent crop. Hence, in judiciously cropped gardens, the strawberry compartment is changed every three or four years, till it has gone the circuit of all the compartments; and asparagus beds, sea-kale, &c., are renewed on the same principles.

Plants, the produce of which is collected during summer, should be succeeded by those of which the produce is chiefly gathered in winter or spring. The object of this rule is, to prevent two active

and exhausting crops from following each other in succession.

Plants in gardens are sometimes allowed to ripen their seeds; in which case two seed bearing crops should not follow each other in succession.

These rules, and others of a like kind, apply generally to the three different systems for the succession of crops, and they are independent altogether of other rules or principles which may be drawn from the nature of the plants themselves; such as some requiring an extraordinary proportion of air, light, shade, moisture, &c; or from the nature of the changes intended to be made on them by cultivation, such as blanching, succulency, magnitude &c. We shall now notice the different systems separately.

Successional Cropping.—The plants best calculated for this mode of cropping are such as require, during almost every period of their growth, the fullest exposure to the light and air; and as remain, also, a considerable time in the soil: these are, the turnip, the onions, the potato, the beet, the carrot, &c. If any of these crops are raised and brought forward under the shade of others, they will be materially injured both in quality and quantity; though, at the same time, while they are merely germinating shade will not injure them. Hence, successional cropping may be carried on in breadths of 20 feet or 30 feet, between rows of tall-growing articles, without injury; which approximates this manner of cropping to the simultaneous mode, which, wherever the soil is rich, is by far the most profitable.

The simultaneous mode of Cropping is founded on the principles, that most plants, when germinating and for some time afterwards, thrive best in the shade; and the tall-growing plants, which require to receive the light on each side, should be sown, or planted, at some distance from each other. Hence, tall-growing peas are sown in rows 10 feet or 12 feet apart; and between them are planted rows of the cabbage tribe; and, again, between these are sown rows of spinach, lettuce, or radishes, &c. Hence, also, beans are planted in the same rows which potatoes or cabbages, (an old practice in the cottage gardens of Scotland;) and so on. The great object in this kind of cropping is, to have crops on the ground, in different stages of growth; so that, the moment the soil and the surface are released from one crop, another may be in advanced state, and ready, as it were, to supply its place. For this purpose, whenever one crop is removed, its place ought to be instantly supplied by plants adapted for producing another crop of the proper nature to succeed it. For example, where rows of tall marrowfat peas have rows of broccoli between them, then, the moment the peas are removed, a trench for celery may be formed where each row of peas stood; and between the rows of broccoli, in the places where lettuce were produced early in the season, may be sown drills of winter spinach.—*Loudon's London Gardeners' Magazine.*

[From the Genesee Farmer:]
"TURNIP TOWNSEND."

There are some men in every country weak and wicked enough to sneer at every thing that does not minister to the immediate gratification of the senses, however much it may tend to ameliorate and improve the great mass of mankind, or bene-

fit their condition. In European countries, this class of men are found among the wilings and parasites of courts, where, elated with temporary importance, they look with disdain upon men whose far-reaching but unobtrusive minds are engaged in benefiting their fellow men, instead of devoting themselves to the foolish fashions and luxurious tastes of the day. In this country, the same species of individuals, though perhaps more rarely, are to be found. They are most frequently discovered among the idle and junior classes of the professions—persons whose parents have obtained competence and wealth by labor, mechanical pursuits, manufactures, or trade, and who, having forgotten the honorable business of their fathers, are disposed to look with contempt on the producing classes. Such a feeling however does not exist in the mind of any well informed man, who is accustomed to view the relation between cause and effect, and who understands the influence which the various parts of the great social superstructure exercise upon each other.

Such was the unworthy feeling that produced the nickname placed at the head of this article. "Turnep Townsend," so called by the court fops of the reign of George the First, was a nobleman of sterling qualities of heart and mind, and who of course was unwilling to devote all his time to the ridiculous and paltry fooleries which engross the attention of so many. Lord Townsend accompanied the King in one of his visits to Germany, and while there was much struck with the fields devoted to the turnip culture in that country, a kind of farming at that time utterly unknown in England. As a food for cattle and sheep, as an enricher of ground, and as a preparative for grain crops, Townsend saw these roots were unrivalled; and making himself familiar with the processes of culture, on his return introduced the practice among his tenants, both by instruction and example. Entering with spirit into the undertaking, he found his efforts crowned with complete success, and from that date may be traced the introduction and spread of the turnip culture in England.

So devoted was Townsend to this new occupation of agriculture, that whenever his duties would permit, he used to hasten away from court to his farms, to encourage by his presence and directions the improvements he was endeavoring to introduce. Such a man could not be understood by the unfledged wits and fashionable butterflies that shine and flit their short lives in the atmosphere of a court, and as turneps formed the base of his attempted innovations in farming, he acquired the name of "Turnep Townsend," which he retained during his life. "If it was asked," says Colquhoun, in his admirable statistical, commercial, and agricultural researches, "who was the man in modern times who had rendered England the most signal service, no one acquainted with facts could hesitate to say, that it was the nobleman whom shallow courtiers nick-named in derision, 'Turnip Townsend.' In half a century the turnips spread over the three kingdoms, and their yearly value, at this day, is not inferior to the interest of the national debt." The rapid renovation, of Norfolk, where the turnips were first introduced, was astonishing; lands long considered as utterly worthless, were in a few years covered with heavy wheat, and the present annual value of

the turnip in that country alone is estimated at not less than fifteen millions sterling, or more than sixty millions of dollars.

(From the New England Farmer.)

POUDRETTE.

How we manage some things.

MR. EDITOR:—Eating and drinking and some other common, or at least occasional employments, may in these days of refinement, be considered somewhat vulgar. Still eating and some other kinds of business which cannot be done by proxy, are, occasionally, very necessary; and, since you request communications, I will tell you a little about how we manage some things. We are not remarkably fond of the suffocating stench, and poisonous effluvia, from putrid excrements, and as we wish to unite *profit* with comfort and cleanliness we take the following method.

We make our backhouse front towards the south. The seat is then placed on the north side so as not to be acted upon directly by the rays of a hot summer's sun.

We occasionally place a few cart loads of dirt near the north side of our backhouse.

The lower part of the covering of the north side of our backhouse from a little below the top of the seat downwards, is a horizontal door, so hung that we can turn it up and down at our leisure, and thus have free access to the parts below the seat, and can easily remove all offensive and putrid matters from the place, and we can also supply fresh dirt when we please. Lime with us is scarce and dear—and according to Sir Humphrey Davy, though quicklime removes the bad smell from putrid manures, and forms with them a valuable compost, yet the compost formed with putrid matters and quicklime, is less powerful as a manure than the compost formed with the same putrid matters with dirt or soil instead of lime.

We allow no vault for the retention of putrifying feces and the production of poisonous gasses to be made under our backhouse, but, instead of this we turn up the horizontal back door before mentioned, and throw a few shovels full of fresh and sweet dirt under the seat, and at suitable times we remove what has fallen under the seat, together with the dirt on which it fell.—This we throw into a heap and cover it well with some of the dirt which we had previously placed near by, and again we also throw fresh and sweet dirt under the seat.—Turn down the back door again, and all is sweet and pleasant about the backhouse, and this operation which occupies from two or three to six or eight minutes, we repeat as often as is necessary to prevent the bad smell which would otherwise be always arising from putrid excrements.

I said we like to unite *profit*, with comfort and cleanliness; and in this way with a little attention, and a little labor, we are delivered from these seeds of cholera, and yellow fever, and from the poisonous and suffocating fumes, which are frequently so annoying to those who are occasionally compelled to retire a while from public view. And with a family of six persons and a few loads of dirt we form from one to two cords (of 128 cubic feet each) of a very valuable compost manure, which if lightly ploughed in, produces powerful effects on corn or on English grain. If put into

corn or cabbage hills, it ought to be slightly covered with dirt before dropping the seed. Put into the hills and slightly covered with fine dirt before dropping the seed, I have seen nothing make cabbages grow like it.

It is of so volatile a nature that if spread and left on the top of the ground or on grass, we should expect a great part of its value would be lost.

If the droppings from the seat are allowed to remain a considerable time before they are removed and well buried, the compost will be liable to be infested with a kind of worms or maggots which sometimes attack the roots of the corn, cabbages, &c. Under these circumstances we have got rid of the worms and saved our plants by watering the cabbages with lime water, prepared by mixing six or eight quarts of quick lime with a barrel of water. But prevention is better than cure. And to prevent the attack of the worms, let the dropping from the seat be removed and well buried before the little flies and other foul feeders deposite their eggs in it. The eggs of the large flies, soon turn to flies, and in warm weather they fly away in a few days, and are not the cause of the mischief of which we have been speaking.

Now by making compost as above described, and using it judiciously, I should suppose that a family of six persons might not only have a great addition made to their cleanliness, their health, and their comfort, but might also have a yearly addition to their income of a barrel of flour. Surely this, in hard times, is a thing not to be despised. We certainly should not be willing to sell the compost we make in a year, in this way, for one barrel of flour, even if it have the most approved fancy brand which connoisseurs admire.

And the compost, if it contains a proper quantity of dirt is not a bad smelling manure after it has lain a few months.

Now then let us calculate a little. Massachusetts at this time, probably, contains six or seven hundred thousand inhabitants. Then let some course be taken, which would save to every six persons an additional barrel of flour yearly, and there would be a yearly saving of a hundred, thousand barrels of flour for Massachusetts, and probably about 50,000 barrels for Connecticut. And 150,000 barrels of flour at \$10 per barrel, would amount to *one million five hundred thousand dollars!!!* Surely this is an amount worth making some exertions for. At this rate the saving for 15,000,000 persons (the supposed population of these United States,) would be 2,500,000 barrels of flour, which at \$10 per barrel would amount to *twenty-five million of dollars in one year!!!*

But in cities this plan of making compost, with dirt, cannot be conveniently carried on into full effect for want of room.

In cities they may keep their backhouses sweet with lime; and may thus prepare a valuable manure.

Suppose then we follow the plan of making compost with dirt, (as before described) only in the country, and instead of 150,000 barrels of flour have only 100,000 barrels for Massachusetts and Connecticut, this at \$10 per barrel would amount to *one million of dollars!* And this in hard times would be no very small amount. And if one

million of dollars might be saved annually in Massachusetts and Connecticut, 16 or 17 millions of dollars might be annually saved in the whole of these United States by the same means!!

When the article in question is dropped promiscuously on the surface of the ground besides being odious to the sight and the smell it is of so volatile a nature, that almost the whole of its fertilizing virtues are lost to the soil.

And now Mr. Editor, if any persons rather than to keep things about them clean and wholesome, are still determined to regale their olfactorys with the poisonous fumes of putrid privies, at the cost of feeding upon musty wheat and rye, imported at great expense from Russia and Germany, I suppose that in this land of liberty we must allow them the privilege of doing so, although by so doing the nation is drained of a great amount of its gold and treasure. Yet we should greatly prefer seeing a practical attention given to the directions of that great teacher, who told his disciples to "*Let nothing be lost!*"

Yours, respectfully, H.
E. H. Conn. June 28th, 1837.

DON'T GIVE YOUR CHICKENS SALT.

A correspondent says in a letter—"The fatal effects of mixing salt, in any considerable quantities with food intended for chickens, or which they can eat, received a singular illustration on the farm of a friend a few days since. As an inducement to his horse to eat a handful or two of salt, he mixed it with a quart or two of meal, and fed it to the animal. The horse refused the mixture, and it was left where it was found by the chickens, which to the number of forty-five or fifty soon caused its disappearance. Within twenty-four hours every one that eat of the meal died, and the greater part did not live half that time. There is an old saying among poulterers, that 'salt is health to a gosling, but death to a chicken,' and the foregoing result would seem to prove that, like other old saws, it contains some truth."

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work again, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work,—a thing worthy of farmers consideration in these times.

J. T. DURDING,

at J. T. Durdning & Co's. fronting Grant and Ellicott-sts., in the rear of Mr. Adam Kyle's Grocery, Pratt-st wharf.



MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,

CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz ,

11 inch Boxes,	\$30,	extra Knives for do. per sett	\$4,
14 " "	\$45,	" " "	5,
20 " "	\$75,	" " "	8,

CORN SHELLERS—hand machines \$20, horse do. \$40. 1500 PLOUGHS, of various sizes and patterns, among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each.

CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each.

DRILL and SOWING MACHINES at 6,20 a \$100 each.

FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox YOKES and BOWS, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES, &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

IMPORTANT SALE OF IMPORTED SHORT HORNED CATTLE AT PHILADELPHIA.

On TUESDAY, 12th Sept. 1837, at 11 o'clock in the morning, will be sold at public sale by catalogue, at Powelton, about one mile from the city of Philadelphia,

33 HEAD of Mr. Whitaker's improved short horned CATTLE, viz. 18 COWS and 15 BULLS.

These cattle were shipped from England at the suggestion of Col John Hare Powel, when he examined Mr. Whitaker's stock in September last, and are well worthy of attention.

M. THOMAS & SON, Aucs.

Philadelphia, Aug. 1837.

A catalogue with the pedigrees, &c. may be seen at the office of the Farmer and Gardener.

At the same time will be sold a thorough bred SPANISH JACK, imported from Spain in 1836. Also a three year old Jack, and four very superior Jennets.

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A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 50	7 50
CORN, yellow.....	bushel	93	95
White,.....	"		102
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana—Alabama.....	"		13 1/2
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 75	9 00
" " wagon price,	"	8 25	
City Mills, super.....	"	8 00	8 25
" extra	"	8 50	
Susquehanna,.....	"	9 37	
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhd's.	hhd.	24 00	
do. in bbl's.	bbl.	4 50	
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 00	2 50
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"	75	1 00
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 75	6 87
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic,—; blk.	"	3 50	4 00
OATS,.....	"	36	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	87	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	3 87	
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	70	75
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 75	1 80
Red, best.....	"	1 60	1 65
Maryland inferior	"	1 10	1 55
WHISKEY, 1st pf. in bbl's.....	gallon.	34	35
" in hhd's.....	"		33
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	
To Wheeling, ..	"	2 00	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.		13 1/2
Shoulders,..... do.....	"		11
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	10	10 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna, ..	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,..... par	VIRGINIA.	
Branch at Baltimore,..... do	Farmers Bank of Virgin.	2
Other Branches,..... do	Bank of Virginia,.....	do
MARYLAND.	Branch at Fredericksburg do	
Banks in Baltimore,..... par	Petersburg,..... do	
Hagerstown,..... do	Norfolk,..... do	
Frederick,..... do	Winchester,..... do	
Westminster,..... do	Lynchburg,..... do	2 1/2
Farmers' Bank of Mary'd, do	Danville,..... do	
Do. payable at Easton,.... 1	Bank of the Valley,.... 2	
Salisbury,.... 2 per ct. dis.	Branch at Romney,.... 2 1/2	
Cumberland,..... 3	Do. Charlestown,.... 2	
Millington,..... do	Do. Leesburg,..... 2	
DISTRICT.	Wheeling Banks,.... 4	
Washington, } Banks, 1/2 p.c.	Ohio Banks, generally 6a7	
Georgetown, } Banks, 1/2 p.c.	New Jersey Banks gen.	5
Alexandria, }	New York City,..... 1	
PENNSYLVANIA.	New York State,.... 3a4	
Philadelphia,..... 1a	Massachusetts,..... 3a3 1/2	
Chambersburg,..... 1	Connecticut,..... 3a3 1/2	
Gettysburg,..... do	New Hampshire,.... 3a3 1/2	
Pittsburg,..... 3 1/2	Maine,..... 3a3 1/2	
York,..... 1	Rhode Island,.... 3a3 1/2	
Other Pennsylvania Bks. 4	North Carolina,.... 6	
Delaware [under \$5].... 6	South Carolina,.... 8a10	
Do. [over \$5]..... 2	Georgia,..... do	
Michigan Banks,..... 10	New Orleans,..... 15	
Canadian do..... 10		

CABBAGE SEED, &c.

FOR SUMMER AND FALL SOWING.

Just received, an additional lot of Early York Cabbage Seed of the Scotch short stalk variety, imported from Edinburgh. This cabbage is full as early as the English Early York, larger head, very dwarf, and is decidedly superior to all early cabbage seed for fall sowing. Also, Early dwarf Paris, Early Battersea, Early George, Bullocks-heart, Flat Dutch, Savoy and other Cabbage Seeds. Large Holland Cauliflower, and Kale Seed, of various sorts, among which is the Delaware Kale, the best sort for fall sowing, color dark green, tinged with purple, the leaf tender and curled.

IN STORE,

Corn Salad, Curled Endive, early Curled Cilicia, brown Dutch and large white head Cabbage Lettuce seeds; black and white Spanish and yellow Turnip Radish seed for fall sowing, the latter a superior sort, and will produce well if sown at any season of the year.

Will be in store in a few days, the Pye Plant or Tart Rhubarb seed, producing a very choice vegetable, and should be cultivated in every garden.

ROBT. SINCLAIR, jr. & CO.
Light, near Pratt street wharf.

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A R V P 2a3w

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AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 12 numbers each, for sale at this office.

A BROOD MARE & TWO COLTS
FOR SALE.

The subscriber is authorised to sell a brood MARE with her two foals—the mare is half sister to Bachelor, her eldest colt now rising one year old is by Messenger, a full blooded horse, the other was dropt the last spring, is by Young Tom, one of the purest of the Tom blood in the country, and is himself one of the fastest trotters and rackers any where to be found. EDW. P. ROBERTS,
au 29 4t Baltimore, Md.

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PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

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The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Casteeel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
J. S. EASTMAN.

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to

SANDS & NEILSON,

Office of "Farmer & Gardener,"

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Corner of Charles & Market sts. Baltimore.

CONTENTS OF THIS NUMBER.

Spring Wheat—A good chance for a silk culturist—three large, very large Calves—Spring Wheat—Work for September—Child's article for sharpening Razors, &c.—Important discovery in purifying Gold Sand—Value of apples for stock—Canada Thistle—The Bot Fly—Columbian Horticultural Society—On the System of Cropping Kitchen Gardens—"Turnip Townsend"—Poudrette—Don't give your Chickens Salt—Advertisements—Prices Current, &c.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEIL, N.—EDITED BY E. P. ROBERTS.

No. 20.

BALTIMORE, MD. SEPTEMBER 12, 1837.

Vol. IV.

THIS publication is the successor of the late

AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, SEPTEMBER 12, 1837.

LIME AND ITS USES.

In our 15th number we published an article on the above subject, in reply to certain inquiries propounded to us by a subscriber residing in Virginia. This article, we must confess, we are gratified to perceive, has had a very general circulation, and been generally approved. Among the papers by which it has been copied, is the "*Yankee Farmer*," published at Portland, Maine. In introducing it to his readers, its intelligent editor makes the following remarks:

"*Lime*.—The Baltimore "*Farmer and Gardener*" gives the following valuable remarks on the uses of lime as a manure, in reply to questions of a correspondent. There continues to be much of ignorance as to the value of this article, though much has been written about it. It ought not to continue.

"We cannot agree with the editor of the Baltimore Farmer in his recommendation to keep the lime near the surface. It is, we believe, fully proved by experience, that lime on the surface is inoperative; and it seems probable that it cannot sink so deep that the root fibres will not follow it. Plough deep, manure deep,—for where do plants seek their principal nourishment—on the surface of the soil, or in its depths?"

The courteous manner in which our friend of the "*Yankee Farmer*" has taken exception to our recommendation "to keep the lime as near the surface as possible," demands of us that we should assign our reasons therefor. It must be obvious to all that as the quantity of lime applied is comparatively small, that it should be placed in such a position as it will perform the greatest degree of service of which it is susceptible. Yielding our assent to the propriety of this belief, we have no hesitation in giving it as our firm conviction, that when placed near the surface it has the best chance of effectuating the greatest amount of good. Lime, it has been ascertained, is soluble in 600 times its own weight of water, and is it not

reasonable to suppose that as even the slightest rains afford that quantity, that the soluble portions of the lime, periodically thrown off by each succeeding rain, will percolate through the earth and find its way through the soil to the depths occupied by the roots, tap, fibrous, and lateral. But if the lime be buried as deep as the roots, is it not to be apprehended that those periodical solutions of the mineral may sink too deep to be effective.— Besides, it is contended that the office performed by lime is purely that of causing the decomposition of any ligneous, woody, or vegetable matter, which may be in the soil. If that be the case, would it not have the best chance of doing good when placed near the surface? There, from its contact with such bodies, it will be enabled to go on with its specific chemical changes, and from its tendency to descend, after performing its office in its immediate vicinity, will find its way downwards in a soluble form and there also do good service. If placed deep in the soil at first, it seems to us to be plain that all matter above it an inch or two must be deprived of its action, unless in a case where a heavy clover ley may be turned in with it, in which case, from the denseness of the body, the decomposition will be so actively carried on as to affect the entire mass.

A correspondent writes that his "turnips have been literally cut off by the grasshoppers," and asks what he "shall do another year to prevent their ravages?" Our advice is, that he should sow his turnip seed earlier, say as early as the 20th of July. By so doing, he will catch the grass-hoppers in a state so young that they will be unable to do any material harm before his turnip plants will have grown out of harm's way from insects.— They will even then have to contend with the *flea* or *fly*, but their chance of escaping destruction will be much better, as they will only have one enemy instead of two to struggle with.

BAKEWELL RAMS.

Mr. John Barney, of Philadelphia, has a few superior Rams of the pure Bakeswell or Leicester breed, one year old, for sale. Their sires were imported by Mr. Barney from England, and these he now offers for sale are equal in form, appearance and size, to any of this popular family of

sheep raised by him—to say this is strong praise when the deservedly high reputation of Mr. Barney as a sheep-breeder is considered. Gentlemen, who may wish to improve their stock of sheep, should lose no time to secure one, as the number on hand is small. Breeders who regard the vigor of the constitutions of their flocks, always change their rams every two years, and such is the rigid observance of this rule with Mr. Barney, that he invariably sends to England every second year to procure his without regard to price, and hence we have one of those causes which operate to render his flock of sheep one of the best in the country.

MEASURING POTATOES.

A fact which came under our observation last spring, while buying our seed potatoes, has convinced us that it would greatly tend to promote the cause of justice between buyer and seller, as well as advance the interests of potato growers if they were sold by weight. We engaged 35 bushels from a dealer, out of a lot of 55 that he had bought. Prior to our sending for them, the dealer told us he had sold 40 bushels and wished us to take the balance; upon our remonstrating against his having sold a portion of the quantity engaged by us, he laughed and said there was more left than we had engaged, and much to our surprise, the residue measured 37½ bushels, making the 55 bought by the dealer actually contain 77½ bushels. On expressing our surprise at these facts, he stated that he had bought the potatoes in bags, and that they contained more than the estimate of their contents, which he had, at the request of the consignee, fixed himself. Here was a clear loss in measure to the owner of these potatoes, of 22½ bushels, whereas had the quantity been ascertained by weight, the judgment of an interested purchaser could have been dispensed with, and justice to the farmer would have been done. We deem it our duty to lay this statement of facts before our agricultural readers, because we honestly believe that great advantage would arise were the measure of potatoes ascertained by weight, instead of the loose manner of measuring in baskets, bags, and half bushels.

EARLY CABBAGES.

Persons who may wish to secure for their families early cabbages next summer, should seize the opportunity now offered of sowing seed of the Early York, Early Battersea, Bullock's Heart, or any other of the early varieties they may prefer. Prepare a bed about four feet wide, of a length suitable to hold the requisite number of plants.—The bed, prior to being dug up, should be well manured; and should you design not to plant them out this fall, by raising them out of the ground and replanting in the same bed they will answer for setting out in the spring, if you take the precaution to cover them over with pine or other brush to keep them from the frost. The best way to do this is to place four or more forked stakes down at the corners and sides of the bed, those facing the north to be less elevated than those facing the south, so as to admit the southern air tolerably freely; place poles across these stakes, and upon these put corn stalks and pine brush.

If you design planting them out this fall, which is the best plan, run your furrows east and west, then with a hoe draw up the earth on the northern side of the furrough, in the cavity thus formed put long manure from your stable, and set out your plants on the northern side of the furrough, so as to have a southern front. In the spring when the frost is thoroughly out of the ground, draw the dirt over the manure from either side of the furrough, and this will answer for the first hilling. The subsequent workings will, of course, be a matter to be determined by your own judgment.

The furroughs should be two feet apart, and the plants *one*, so as to allow for killing by the frost.

The sooner you sow your seed the better.

We regret to perceive by letters published in the Charleston Mercury that the plantations in the neighbourhood of *Combahee, South Carolina*, have suffered severely by recent storms. "All the rice which had not shot forth its ear and had not filled," is, says one of these letters, "inevitably lost," which, as far as the writer's knowledge goes, is one third of the crops.

The writer further adds:

"The Crops have sustained injury, more or less, agreeably to their situation on the river, growth, &c. Those which were protected by wooded lands, and such as were not of a very luxuriant growth are not injured so much as others which were quite exposed to the winds, and a tall luxuriant growth. Some portion of the rice which was in a state most calculated to sustain in-

jury from like incidents, at least one half is lost. With this loss, and that which the birds will, no doubt as usual, fall heir to, rice crops will be very short in comparison to what they would have been."

Another letter from Georgetown in the same state, in speaking of this storm, says, it was the most violent one which they have experienced since 1822.

"One or two old unfinished houses have been blown down, no lives lost—it rained in torrents. The Rice Banks, as far as I have heard, have suffered but little, the damage to the Rice cannot be ascertained till the grain is more matured. Corn crops have suffered much, a great many ears have been blown from the stalks, and the blades split to ribbands, and in many fields scattered to the winds."

"AUGUST 20.

"I have heard from the country,—the damage to Banks is considerable, and the Rice has been terribly injured by being whipped, and the heads of some of it is already white."

ACCLIMATING NURSERY OF TROPICAL PLANTS.

We publish with great pleasure, the article subjoined, from the *Southern Agriculturist*. The subject to which it relates is one of deep interest to the country, and for one we should be happy to see the views of the enterprising and intelligent projector, met in a spirit of liberality by the National government. The benefits which would result, in the increased amount and varied character of its products—in the enhanced value of labor, and the diversified nature of employments, would be of incalculable importance in a national point of view.

Dr. Perrine, the projector of this nursery, has been American consul at *Campeche*, for the last ten years, and during the greater part of that time, instead of devoting his time and advantages of situation, to the accumulation of wealth, was ardently engaged in the collection of such plants as he thought could be turned to the improvement of the agricultural resources of his country—and particularly of such as were susceptible of being converted into useful articles of manufacture. He showed us many of his specimens; among them we discovered many which need nothing but the skill of our admirable manufacturers to transform them into rope, twine, and cloths of various kinds. Besides possessing high classical attainments, Dr. Perrine is an excellent botanist, and withal an enthusiast in all that appertains to that interesting study, to agriculture, and to horticulture. With such eminent qualifications, he is pre-eminently suited to stand at the head of such an institution, and would, we are certain, reflect great honor upon

our country's character, besides contributing largely to its individual and national wealth. Indulging in such views of his contemplated undertaking, in the sincerity of our heart, and in the singleness of our soul, we say, God speed the good work.

ACCLIMATING NURSERY OF TROPICAL PLANTS.

We publish the following letter from Dr. Perrine with great satisfaction, believing as we do, every man who adds to the productions of this country, acquires for himself a claim upon the gratitude of the public. It is much to be regretted, the unsettled state of the country, has so far deranged the doctor's plans, as to compel him to locate a temporary nursery at Key West. The enterprise is every way praiseworthy, and we hope will prove eminently successful. So far as this work, and our efforts can advance the views of Dr. Perrine, they shall have our cordial support. We are sorry, a catalogue of seeds and plants, did not accompany his letter, as no doubt the variety is great, and would the more readily command the attention of the liberal and patriotic citizens of the Southern states. Much time, attention, and labor have been expended in procuring the means of establishing a nursery, and "as the laborer is worthy of his hire, we hope Dr. Perrine, will receive a liberal remuneration from a generous public.

"Key West, *Tropical Florida*, 30 June, 1837.

Mr. Editor,—Having long been a fellow laborer in the great field of vege-culture, I respectfully address a few lines to your favorable consideration. With a large collection of seeds and vegetable products of Yucatan, I left *Campeche* on the 28th of January last, and arrived at New-Orleans, on the 11th of February with the intention of proceeding by the first opportunity to the vicinity of Cape Florida to commence my acclimating nursery of tropical plants. Having, however, waited in vain for a direct passage to this place, on the 5th June I embarked for Havana, which city I left on the 15th, and arrived at Key West on the 17th inst. The renewed hostilities of the Seminoles at the southern extremity of the peninsula, have rendered it impossible for me to locate myself on the main land, and hence my present impressions are in favor of selecting a spot in this or some other islet to plant my seeds and to make a preparatory garden or nursery. This new disappointment of my cherished plan, renders me still more anxious to excite some sympathy among the patriotic friends of the enterprise of acclimating tropical plants, which I have pursued upwards of nine years, unaided and alone. I therefore transmit to you a copy of a Circular by ex-governor Roman, President of the Agricultural Society of Louisiana, intended to be directed to the President of all the Agricultural Societies of our Southern and South-western States, in which Societies exist, and to the Governors of such of the same States as have not yet organized such Societies. As my residence in Mexico, prevented my gaining access to the files of the *Southern Agriculturist*, I am ignorant of the condition of South-Carolina in that respect, and therefore leave blank the direction of the aforesaid Circular, with the hope that you will

be kind enough to fill it with "To the President of the Agricultural Society of South-Carolina," or "To the Governor of the State of South-Carolina," as circumstances may require.

Should you, besides directing said Circular, be also so kind as to publish it in your periodical, my gratitude shall be yours, and will be manifested in any way you direct. I believe that I have many quires of manuscript whose publication in the Southern Agriculturist, might be acceptable and profitable to your readers; but until I can peruse your back numbers, my communications might embrace matters already before them, and hence my unwillingness to risk any thing previous to the acquisition of your back volumes. As I have no botanical works of the United States, of a later edition than Eaton's Manual for 1833, I must take for granted that the latter contained the names of all plants both indigenous and exotic known at that period, until I can acquire a list of the plants subsequently discovered and introduced by others. A list of the tropical plants introduced by myself, shall be at your service. In short, I believe that you and myself can be mutually serviceable to each other in our respective undertakings, and to the agricultural prosperity of the whole Southern and South-western States. You will pardon the defects of this hasty and desultory communication, and I shall be greatly gratified by a few lines in return, the ensuing mail. Should I proceed to Washington this summer, my route will likely be *via* Charleston, when I shall do myself the honor to call on you and exhibit some samples of the vegetable products of Yucatan.

Very respectfully,

Your Obed't. Serv't,

HENRY PERRINE."

The following letter and resolution, show Dr. Perrine's exertions have been untiring, and are properly appreciated by those who are personally acquainted with him, and know best the value of his acquisitions. The letter and resolutions being an open circular intended for the Governor of this State, we have thought proper to insert them here, as the best means of bringing the subject, under the consideration of our Agricultural Societies.

New-Orleans, June 1st 1837.

Sir,—I respectfully invite your attention to the following resolution of the Agricultural Society, over which I have the honor to preside, and also to the appended resolution of the Legislature of this State, which were presented by a Director of the Society. The preamble to the resolutions of the Legislature, expresses our motives for thus endeavoring to facilitate the persevering enterprise of Dr. H. Perrine, and I may add, that my personal knowledge of himself and his services, induces me to hope that the Agricultural Society, and the Legislature of your State, will render him some assistance, at least towards the passage of the bill alluded to, during the ensuing session of Congress.

Very respectfully,

Your Obed't. Serv't.

A. B. ROMAN,

Pres. Agricul. Soc. of Louisiana.

Resolved, That the President of the Board be, and he is hereby authorized, to make such arrangements as he may deem proper with Mr. Perrine, for the publication, at the expense of the Society, of such part of his writings as may pro-

mote the interests of agriculture; and to procure from Havana and other parts, through Mr. Perrine, such plants, as in his opinion, may become acclimated here.

The foregoing is a true copy from the Journal of proceedings of the Agricultural Society of Louisiana, at its meeting of the 7th March, 1837.

(Signed)

EUG. ROUSSEAU,

New-Orleans, May 27, 1837. Sec. A. S. L.

(No. 96.) Resolution. Whereas in obedience to the Treasury Circular of the 6th September, 1837, Dr. H. Perrine, late American Consul at Campeche, has been distinguished by his persevering exertions to introduce tropical plants in the United States; and whereas, the Committee of Agriculture in Congress, on the 22d April, 1832, did report a bill to encourage the introduction and promote the culture of tropical plants in the United States by conveying conditionally to said Perrine, and his associates, a township of land in Southern Florida; and whereas the gradual acclimation of tropical plants in all the Southern and South-western States may be better accomplished by their intermediate domestication in the tropical district of Florida.

Sec. 1. Be it therefore Resolved, by the Senate and House of Representatives of the State of Louisiana, in General Assembly convened, that our Senators in Congress be instructed, and our representatives requested to procure the passage of said bill into a law, under such conditions as may best comport with the public good.

Sec. 2. And be it further Resolved, That the Governor be instructed to forward a copy of this resolution to each of our Senators and Representatives in Congress.

(Signed)

ALCE LABRANCHE,

Speaker of the House of Rep.

(Signed)

C. DERBIGNY,

President of the Senate.

Approved, March 11th, 1837.

(Signed)

E. D. WHITE,

Governor of the State of Louisiana.

CORN CROP OF THE E. S. MARYLAND.

The editor of the Centreville Times, thus speaks of the prospects of the corn crop on the Eastern Shore of this State; we hope, however, that the blessings of Providence, through the influence of genial suns, and a protracted fall, may repair much of the damage done to the growing crops of this great stand-by of the farmers and planters.

THE CORN CROP.

We incline very much to the opinion that there will be but little more corn made on the Eastern Shore this year than was last year, notwithstanding the glowing accounts given by some of our brother editors—we ourselves are engaged in agriculture, and see and know the cause of failure. It has not been particularly in the want of rain, but particularly for the want of heat that the crop will fail. Corn delights in hot weather, and the present season has been too cold for it—the cold of the two weeks past has been destructive to latter corn—the only corn which was greatly benefitted by the late rains. A good deal of the forward corn suffered for rain in June, and of course is now past all hope. Should September prove warm latter, corn may be a little benefitted, but not a great deal.

[From the Cultivator, by G. Vanderlin of N. Y.]

IMPORTANT TO FARMERS.

In the winter of 1819, a disease prevailed amongst the cattle to an alarming extent; some farmers lost more than one half. I have at this time nineteen head of cattle on my farm, which were kept confined to the barn yard; they were watered at a trough standing near a log house. I watched closely those that were affected with the disorder and observed that they would very often after they had drank, turn to the old log house, and endeavor to eat the clay from between the logs, that is when the ground was hard frozen and covered with snow. Knowing that all animals are governed by instinct, and seldom ever eat that which is not beneficial, I determined to try the experiment—accordingly, I procured a quantity of clay, and offered it to them in pieces of a proper size, which they greedily ate from my hand; they were afterwards fed with clay twice a week until the snow disappeared, and never were cattle healthier, or in better condition when the spring opened—since then to the present time, 1836. My horses, cattle, calves and sheep, when the snow and frost has prevented them from obtaining earth or clay for themselves, have been supplied. I have fed it to calves in the spring and summer and it has never failed to restore them to their appetites, when they refuse to eat, correcting all acidities of the stomach, and stopping all scourings, as magnesia does in children. As to calves I have never lost one in winter, and of sheep not two in a hundred, since I commenced feeding on clay, and out of 140 sheep, during the last winter, I lost not one and most of them were good mutton. During the last winter the sheep of Dr. Butler, an extensive wool grower, were taken with the scours and many died, before he was aware of it; he immediately had clay dug up and thawed, and fed to them, after which he lost not another sheep. I am perfectly satisfied that it is as necessary that cattle and horses should have clay given them in winter, when the ground is covered with snow, as it is that they should have salt in summer; and as to sheep and calves I would rather mine should do without salt than without clay.

The Nasaua (N. H.) Telegraph places before us another evidence of Yankee ingenuity, in the following account of a newly invented *Stone Cutting Machine*, which has lately been put in successful operation in that town. It is stated to be the invention of Adin Holbrook, Esq. assisted by Mr. William Eayres, a practical stone-cutter, by whom the machine is jointly owned, and who have taken measures to secure a patent:—[*Balt. American*.]

The machine, though simple in its principle, is quite complicated in its details, but yet not liable to get out of order. Any attempt of ours to give a scientific description of it, would be useless—if we can in common language give an idea of its construction and operation, our purpose will be answered.

In the first place, the hammers or chisels are placed in a heavy stout frame-work, or harness, as it is technically called—and so arranged as at all times to play into a common centre, below which they cannot go, no matter to what angle

they may be elevated. This of course secures a perfectly even surface. The chisels are four feet in length, and weigh about 25 pounds each. These are raised, by means of a cam wheel, to a given height, when they are forced down by powerful spiral springs, which act upon the head of each. The harness is constructed so as to be raised or lowered with the utmost facility by means of a crank, increasing or diminishing the angle of the direction in which the blow is given, as circumstances may require. The harness, also, has a traverse motion, which effectually prevents any ridges or inequalities which might otherwise be left between the several chisels. The springs are so ingeniously arranged that the blow is always equal whether the position of the chisel be perpendicular, or at its utmost depression.—They are also at perfect command, acting with greater or less force, in proportion as the quantity of stone to be taken off is greater or less. The stone to be hewn passes under the chisels upon a carriage similar to the common saw mill.

The machine, when completed, is to have three sets of chisels—the first for slabbing, are five-eighths of an inch in width; the second for cutting down, or more perfectly leveling the surface, are two inches; and the third for finishing, three inches; so that a rough stone passes in at one end and comes out at the other finished in the most perfect manner, by a single operation and in a very short time. It is now arranged for plain stones only, the chisels being of equal length; but by making them of different and proper lengths, and in proper shape, mouldings and cornices may be made in the nicest manner.

Thus much for its construction—of its operation we can speak in more intelligible terms. Its success has been demonstrated to the satisfaction of all who have witnessed its operation, including our best mechanics, and many practical stone-cutters. A committee of the Boston Mechanics' Association have examined it, and express their utmost confidence in its success, and are very anxious to have a model exhibited at the Fair in September. We hope the proprietors will do themselves the justice to gratify them. The work which has been done with it thus far is excellent. An evil which might have been feared, the breaking off the corners and leaving them in a rough state, is entirely obviated; no man can make a more perfect corner with hand tools, than does this machine. It is an important fact, that the saving in the wear of tools is very great. The chisels, with once sharpening, will cut a length of 75 or 80 feet of hard granite.

The present machine cuts but two feet in width, but they may be made to cut any width which may be desired.

The machine is about being removed to Amoskeag, where they have a large contract, and where its usefulness will be fully tested.

[From the Lexington (Rockbridge, Va.) Gazette.]

SPRING WHEAT.

NEAR LEXINGTON, Aug. 5, 1837.

Dear Sir: Your polite note of the 27th inst., asking information in relation to the culture of Spring Wheat, evincing at the same time a lively interest in the advancement of the agricultural interests of our valley, was received in the spirit in

which it was written. So far as the imperfect experiment I have made in the culture of that grain, in so extraordinary a season as the past has been, can furnish any information, it is cheerfully yielded to the consideration of the farming interest. Your several queries on that subject I will answer in the order in which they are proposed. The wheat is of the bearded kind—rather a transparent, red, flinty grain, of the medium size, adhering more closely to the meshes, and less liable to waste by shelling out in harvesting, than the ordinary bearded winter wheat. Soil of middling quality I have no doubt would produce finely, and I think I may safely say, that the common soil of our county, (unimproved by skilful tillage,) when well prepared and seeded in season, would give the farmer a larger yield in the Spring wheat, by from fifty to a hundred per cent., in ordinary seasons, than the winter wheat has heretofore yielded. The average production of winter wheat in this region, has not heretofore exceeded eight bushels to the acre, and I feel well assured, that the Spring Wheat in ordinary seasons, would never yield less than from twelve to twenty. It is certainly true, that our general system of farming is wretched. But let our farmers pursue their interests with that skill necessary in the improvement of their lands, and their returns must be bountiful. I know of no soil more highly susceptible of improvement than ours. I am induced to believe, that our first preparation of soil for the culture of Spring Wheat, should commence with the early winter fallow, the furrow turned about half over or on an angle of forty-five or fifty degrees, so as to incorporate the earth turned up with the soil of the surface turned over. Whatever vegetable matter may be on the ground at that season, thus becoming mixed with the earth, will have all the advantage of winter rains, snows and frosts, tending to its gradual decomposition. This leaves the land, after the Winter frosts have left it, fine and mellow for early spring sowing. Let the ground then be stirred with the Cary plough, sow it when the ground is fresh, and plough in the grain with the scoop or common shovel plough. In that state it soon mellows down to the common level, by the action of the spring frosts and rains, whereas, if you harrow it, the after spring rains have a tendency to sodden, (clayey soils particularly,) in which situation warm suns soon bake a crust on the surface; thus materially retarding the process of vegetation.—As to the precise time in which the Spring wheat should be sown, I can only say the fickleness of our climate renders it somewhat problematical, and that considered in connection with the diversity of our soil must increase the difficulty of its solution. Some soils are warm and forward, others cold and backward. Much therefore is left to the discretionary judgment of the farmer, who best understands the character of his own soil. In ordinary seasons, my impression is, that with us, any open spell of weather, between the 15th of February, and the last of March, would prove a good seeding time, and ensure an abundant harvest. In sowing I am convinced I committed an error in putting too much seed on the ground, which was a bushel and an eighth to the acre. Where it happened to be thin I found the strongest straw, the heaviest stooling, and the finest heads—and when thick the reverse. Noticing

that the Spring Wheat had a much greater capacity to branch or stool out than the Winter Wheat, and unaffected as the Spring Wheat is by the severity of the winter, I am persuaded that three pecks to the acre is sufficient seed. Having been so busily engaged in housing my other crops, I have not thrashed out my Spring Wheat; consequently, cannot give you the product, but presume from the quantity of shucks on the ground, I shall have from 15 to 20 bushels to the acre. As I design what I have raised for seed, I shall not convert any of it into flour; although I am well satisfied, that it will not make as fair flour as the white wheat of our country, still I am convinced, from its appearance, that it will make flour equally as rich. Let us have our usual seasons, and our time of harvesting the spring wheat will be about the 1st of July. As to my opinion in relation to the substitution of the Spring wheat, in part or in whole, for the Winter wheat of our valley, I may safely say, I should strongly incline to its partial substitution, but not entirely. We know not what enemies the Spring Wheat has yet to encounter in our climate, or what obstacles may operate against its uniform maturity. The wheat crop in an irregular climate is always precarious, the vicissitudes of seasons have diverse tendencies on it in its growth to perfection. Give us the Winter and the Spring wheat in their seasons, and we will always be certain of producing more than sufficient for home consumption; adopt the spring wheat alone and such may not be the consequence. Northern farmers, who have a more enlarged experience in the culture of the Spring Wheat, say unless carefully cultivated that it is more liable to smut than Winter Wheat—a disease in Wheat which completely vitiates every idea of a delicious wheaten loaf. With me it has not made its appearance in that which I have grown.

Whatever wheat of the Spring kind I have over six bushels, I design distributing as extensively as it will go among the farmers. Such was my object in procuring it, on a satisfactory experiment. Applications already made may take all I have to spare. I spent some time in cleansing it of oats and other seed before sowing it, and it is perfectly clean—I shall observe that the land on which I had sown the Spring wheat, part of it was thin and a part very rich—time of sowing 10th of March—the thin land producing equally well with the rich (it being thinner sown on the poor land.)

I shall observe in conclusion, that the Spring Wheat was not in the slightest degree affected with the rust; a circumstance which was to me remarkable, from the fact, that my Winter Wheat when heretofore sown on the same land has invariably been seriously affected with that disease.

Respectfully, yours,

WM. H. CARUTHERS.

N. B. I shall here remark that I made an experiment the past spring in sowing on the 10th day of February some select Winter Wheat on a choice lot of ground well prepared; it grew finely of between five and six feet, shot forth fine heads, bloomed beautifully, became subject to the rust, and perished in the grain, and it now stands as an unprofitable and unseasonable thing. W. H. C.

Mr. C. C. Baldwin, Ed. Lex. Gaz.

[From the Athens (Geo.) Banner.]

Spring Wheat—A few days since we received a letter from an esteemed friend and excellent practical farmer in an adjoining county, in which is the following paragraph :

"A few minutes past, I was enabled to ascertain the result of my Italian Spring Wheat, sowed on the 4th of February, $3\frac{1}{4}$ bushels, in about $2\frac{1}{4}$ acres of land; and the crop measures 34 bushels and about a pint."

Would not our farmers do well to obtain this variety of wheat, and sow it in preference to that now generally used? We know but little on the subject, but it seems to us, that in this climate, where the ground in the winter is frequently thrown up by the frost and is almost entirely unprotected by a covering of snow, as in more Northern wheat-growing countries, a variety which could be sown in the spring would be of great value. We hope our farming friends will give the subject some attention, and favor us with the result of their experiments.

[From the Richmond Enquirer.]

Early Spring Wheat—We give on our last page further accounts of the cultivation of the Italian wheat in the Valley of Virginia—The following letter is from the Lowlands :

To the Editor: "HAMPTON, Aug. 26, 1837.

"Mr. Hathaway, postmaster, New York, advertised in your paper during the last year the Italian wheat for sale. I sent for 50 bushels—received 11—sowed 9—and the result has exceeded any expectation. Oats were with it when received—were sowed with it—are now with the present crop, though shrivelled, perhaps a quart to the bushel. Mr. Armistead, near me, has made after the rate of 30 bushels to the acre, though drilled and badly cultivated. Mr. A. D. Barclay's letter, in your paper of yesterday, furnishes perhaps all the facts in relation to mine.

Respectfully, JOHN W. JONES."

Indian Corn—A Winthrop correspondent of the Maine Farmer, who has kept a memorandum of the growth of corn in his garden for about 17 years, says as follows :

I have uniformly planted about the first of May, if the season was not very backward indeed. I have noted when I have discovered the first spindle, the first silk, when it was fit to boil, when corn was very late, and what the corn was in the first spindle.

1820 July 6, 1st spindle

1821 July 6, 1st "

1822 June 18, 1st " July 4, silk'd

1823 June 28, 1st " July 14, "

In the above seasons, except the last, I had corn fit to boil in July—the last of the above not until Aug. 5—yet there was a tolerable crop in the country that year.

1824, July 7, 1st spindle, July 18th, silked—none fit to boil until Aug. 11, yet a middling crop in autumn.

1825, June 23, first spindle, July 6, silked—fit to boil July 26.

1826, June 19, first spindle, July 4, silked.

1827, June 24, first spindle, July 7, silked—fit to boil Aug. 4th.

1828, June 18, first spindle, July 5, silked—fit to boil July 18; this was a small inferior corn.

1829, no minutes made.

1830, June 26, first spindle, June 30, silked.

1831, June 18, first spindle, June 30, silked—boiled July 22,

1832, July 6, first spindle, July 26, silked—not fit to boil until Aug. 15, four days later than ever before. There was a small crop in autumn, there being an early frost.

1833, June 23, first spindle, silked July 12—fit to boil Aug. 4. Small crop in autumn.

1834, July 3, 1st spindle, July 15, silked—fit to boil Aug. 8—light crop.

1835, July 4, 1st spindle, July 15, silked—fit to boil, Aug. 8—light crop.

1836, July 6, 1st spindle, July 19—silked—fit to boil Aug. 14—miserable crop, there being an early and severe frost.

1837, July 6, 1st spindle.

[From Loudon's Gardener's Magazine.]

ON THE STRAWBERRY—by A. Forsyth.

The strawberry is now a staple article in the dessert for at least six months in the year. To have it early, as at Christmas, and from that till the middle of March, is rather troublesome; more so than the fruit, under ordinary circumstances, is worth. From the middle of March to the middle of June, is the ordinary season for a supply of forced strawberries; therefore, I shall have that period in view in the following detail of their culture.

As soon as the runners are long enough to lay, let that be done in the following manner: Prepare your quantity of 60 sized pots, by putting one crock or pebble in the bottom of each; then fill the pots with strong loam (if turfy, so much the better); then let a man take an iron-shod dibber, with two handles, and a bracket for the foot, such as is used around the metropolis for potatoes, and make holes between the rows of strawberries, deep enough to let the pots into the brims; and on the centre of each lay the joint of a runner; and over that lay a pebble about the size of a duck's egg. By this method there is a vacuum under the pots, which drains them; and their being let into the soil saves watering, and preserves a more regular degree of moisture; and the pebble, used instead of a peg, is acted upon by the sun's rays, concentrating heat and moisture, which greatly accelerates rooting. When well rooted, they may be cut from the runners, and potted in thirty-two sized pots, one in each, and plunged up to the brims in some convenient quarter of the garden; in beds, 5 ft. wide, with 2 ft. between, and defended from autumn rains, and spring frosts, in the following manner: Set up two sticks in the form of the letter A, and in the juncture lay one along the top, and tie the three together; then tie one selvage of a mat to the top rail, and to the other selvage tie a straight edged stick, one or more lengths of the mats; then, in dry weather, roll the mats inwards and upwards, and fix them to the cross ends of the rafters by a string loop: the bearers may be 2 feet apart all along the beds. This will form a cheap and efficient protection from saturating rains and late spring frosts. Thousands of strawberry pots were rendered useless, in the commercial and private gardens around London, last year, by the want of some precaution like that now described; and I hope it will be the means of doing away with the present

ugly practice of laying the pots on their sides during winter. The hoops and mats used now by nurserymen and others, afford a very partial protection; as the curvilinear roof allows almost all the rain that falls on the middle of it to pass through, which the steep straight roof of this effectually prevents.

Thus grown and protected, the strawberries may be brought into the forcing-pit, previously filled with tan, dung, or leaves, to within about 18 in. of the glass. On this bed the plants are set, and a gentle temperature of from 50 to 55 deg. is maintained in the pit: if without fire heat, so much the better. From this time, till the plants have perfected their fruits, a leaf should never be allowed to droop for want of water; yet the reverse is equally destructive, more especially before the flower stems appear; as soon, however, as these are up, a liberal supply of water is necessary (yet I should not use saucers to stand the pots in,) till the fruits get to their proper size; when it must again be supplied sparingly, only just enough to keep the leaves from flagging, till the strawberries are gathered. Whilst in flower, a temperature of from 60 to 65 deg., with a free circulation of air, is best. The fruit once set, the plants will do well in a stove where the minimum temperature is as high as 75. Plants treated in this manner, introduced into the forcing-house in the middle of December, will generally perfect their fruit about the middle of March. The fruit ought to be thinned out: all the deformed ones should be cut clean away, and the more promising ones should be pegged to the sunny side of the pot.

Dry heat and free air are indispensable to their being well flavoured. Almost all the varieties of this fruit will bear forcing, but the best sorts for it, that I am acquainted with, are, Kean's seedling, and the Aberdeen seedling. A well-managed peach-house is an excellent house to force strawberries in. The plants, after forcing, may be turned out of the pots, and fresh plantations made of them, plunging the balls entire, and drawing the earth close up to the centre of each plant. The greater part of the leaves may be cut off, as they would soon be killed by the sudden transition, unless pains were taken to harden them to the air by degrees, or to shade them after planting out.

Isleworth, Nov. 4, 1836.

[From the National Intelligencer.]

THE CONSUMPTION.

We give place to the following at the instance of a medical gentleman of high reputation, who has been for twenty years afflicted with a pulmonary complaint, and who thinks so well of the remedy here proposed that he is about to try it upon himself:

For the Commercial Advertiser.

The late lamented death of Dr. BUSHE from that form of consumption known as chronic bronchitis, painfully reminds me of a duty the subscriber owes to his profession and to society, of making known a simple form of treatment that has never failed him in curing this form of consumption, so destructive to the clerical and literary professions; this treatment is of nearly equal efficacy in catarrhal phthisis, and is a valuable remedy for consumption in all its forms when in its chronic stages, and free from any

inflammatory symptoms. This treatment is based on the pathology of consumption, as a generic name for disease.

Under the name of consumption are included that variety of diseases of the lungs attended with expectoration of purulent matter from the breathing surface of the lungs, connected with emaciation, hectic fever, and its concomitants, night sweats, colliquative diarrhoea, &c. All the forms of consumption act on the general health from one common cause—the presence of matter acting upon absorbing surfaces, thus producing those symptoms known as *hectic fever*. It is the presence and violence of this symptom of consumption that prostrates the patient, until it more or less slowly ends in death. It is the consequence of this hectic fever, and not the immediate disease of the lungs causing it, that forms the source of fatality from consumption.

The treatment I now with reluctant diffidence submit, I have successfully used for more than 12 years, and, during that period of medical practice, I am not aware of having lost more than 4 or 5 patients from all the various forms of consumption, and these were mostly passed, to that stage of disease where the structure of the lungs had become so extensively diseased as to preclude the use of more than palliative treatment. Cases of chronic bronchitis were in every instance cured by it, even when the purulent expectoration amounted to pints daily, with hectic fever, diarrhoea, cold sweats, and entire physical prostration.

The treatment is the administration of sulphate of copper in nauseating doses, combined with gum ammoniac, given so as to nauseate but not ordinarily to produce full vomiting; the usual dose for this purpose is about half a grain, and 5 grains of the respective ingredients, in a teaspoonful of water, to be taken, at first twice, and in the convalescent stages once a day.

In cases of chronic bronchitis a gargle of the sulphate of copper alone is superadded. In this latter form of consumption this treatment almost invariably suspends the hectic symptoms in a few days, and the disease rapidly advances to its final cure.

In cases of the more proper forms of consumption the treatment must be intermitted frequently, and again returned to; and whenever soreness of the chest, or other symptoms of inflammatory action exist, the treatment should be suspended; as it is in the chronic state alone that the remedy is indicated or useful—that state in which the condition of the general system as sympathetically involved becomes the more prominent symptom, and the success of the treatment depends chiefly on the breaking up this sympathetic action of the diseased lung, on the more healthy tone of the stomach, and increasing its digestive powers, and likewise causing, during nauseating action, a more active and healthy circulation of blood through the lungs. Its curative powers are more immediately attributable to these effects of its action.—But theory apart, the treatment is presented based on more than ten years experience of its curative advantages, in the proper treatment of diseases of muco-purulent and purulent expectoration.

Having left a profession that more nearly than any other approaches the pure duties of humanity, but which has nearly ceased in this country to be honorable or profitable, I have little motive in

exposing myself to that certain ridicule that follows the annunciation that consumption may be cured, but the assurance of practical experience, and the desire of making public a means of saving life, in one of its most frequent and unwelcome exits.

EDWARD C. COOPER, M. D.

[From the Northampton Courier.]

Mr. Atwell—Will you allow me small space in your paper to invite Mr. *Luther Tucker*, editor of the *Genesee Farmer*, to visit Northampton, and examine my plantation of mulberry trees—the produce of seed brought by me from Italy—on account of which he commenced an attack on me in his paper last winter. The trees are now in a flourishing condition and may be compared with fourteen sorts on the same ground—they will speak for themselves. I may be allowed still to express my decided preference for the sort in question. Mr. Tucker was active in getting up his evidence against me. All that myself or friends could say, appeared to have but little weight with him. It was then winter—I could bring no further evidence than my word of honor, and the original bill of seeds. I now offer to him and to all others interested in the subject, a fair opportunity of judging for themselves.

I have at great risk and expense imported every valuable mulberry, to the number of 14 different sorts, all of which I have now growing, and with all of which I now challenge a comparison. Mr. Tucker came boldly forth, accusing me of *fraud and deception*. I now as boldly call on him to prove if he can, the truth of his accusations.—It was a very serious charge to make—I would now seriously pursue the subject to the end. The public can take no interest in the matter; I must apologize for thus appearing before it. But I assure you I have a very deep interest in it—and in justice to myself I would call on Mr. Tucker to endeavor to obtain such information as shall convince him that he was in error, and by persevering in that error he has greatly injured me.

That the hard times may not be an obstacle in the way of his coming, he is authorised to draw on me, at sight, for the amount of his expenses.

Respectfully,

SAMUEL WHITMARSH.

Northampton, Aug. 24, 1837.

ON BUYING AND STOCKING A FARM WITH CATTLE.

The first object of attention, is to consider the proportion between his stock and the quantity of feed which will be necessary to support them. The nature, situation, and fertility of the soils that compose his farm are worthy of notice; also the purpose for which he designs more particularly to rear or feed his cattle; whether for the pail, or for beef.

In fact, it will be expedient to observe the greatest exactness in this proportion, because, if he should overstock his land, he will be compelled to re-sell before the cattle are in a fit state for the market, and, consequently, at certain loss; while, on the other hand, he will incur a loss in his profit, if he should not stock his land with as many cattle as it will bear.

Formerly, a great prejudice prevailed in favor of big-boned, large beasts, but it has been ascer-

tained, that this breed is, in point of profit, much inferior to the middle sized kind. By a careful attention to the selection of stock great progress may be made towards the improvement of the different species. Among the various professional breeders of modern times, few have attained greater celebrity than the late Mr. Bakewell of England, to whom we are indebted for many new and important improvements in the science of rearing cattle.

The principle which he invariably adopted was, to select the beast, that would weigh most in the valuable points; so that, while he gained in point of shape, he also acquired a more hardy breed—By attending to the *kindliness* of their skin, he became possessed of a race which was more easily fattened than any other.

For many years the practice was to judge by the eye only, without regarding the other qualities of the animal. But, in the present improved age, a more rational mode of forming the judgment has been adopted. The sense of touch is now brought in aid of the sight. By repeated practice, the art of judging of the kindliness to fatten has been brought to such perfection, that any well informed breeder, will tell almost instantaneously, in what points or parts they will or will not fatten.

In the selection, therefore, of live stock in general, the young farmer will find it necessary attentively to consider the following particulars: *Beauty or symmetry of shape*—in which the form is so compact, that every part of the animal bears an exact consistency, while the carcass should be deep and broad, and the less valuable parts (such as the head, bones, &c.) ought to be as small as possible. Further, the shoulders ought not only to be light of bone, and rounded off at the lower point, but also broad and well covered with flesh. The back also ought to be wide and level throughout.

In rearing live stock of any description, it should be an invariable rule to have the increase from small-boned, straight-backed, healthy, clean, kindly-skinned, round bodied, and barrel-shaped animals.

In the purchasing of cattle, whether in a lean or fat state, the farmer should on no account buy beasts out of richer or better grounds than those into which he intends to turn them. For, in this case, he must inevitably sustain a very material loss, by the cattle not thriving, particularly if they be old. It will, therefore, be advisable to select them, either from stock feeding in the neighborhood, or from such breeds as are best adapted to the nature and situation of the soil.

Docility of disposition, without being deficient in spirit, is of equal moment. Independently of the damage committed by cattle of wild tempers on fences, fields, &c. it is a fact, that tame beasts require less food to rear, support and fatten them; consequently every attention ought to be paid, early to accustom them to be docile and familiar.

Hardiness of constitution, particularly in bleak and exposed districts, is indeed a most important requisite. In every case it is highly essential to a farmer's interest to have a breed that is liable neither to disease nor to any hereditary distemper.

Connected with hardiness of constitution is *early maturity*. This, however, can only be attained by feeding cattle in such a manner as to

keep them constantly in a growing state. By an observance of this principle, it has been found that beasts and sheep thrive more in three years, than they usually do in five when they have not sufficient food during the winter. In the common mode of rearing their growth is checked.

Working, or an aptitude for labor. Whether kine be purchased for the plough, or for the purpose of fattening, it will be necessary to see, that they are young, in perfect health, full-mouthed, and not broken in any part. That the hair stare not, and that they are not hidebound or they will not feed kindly.

The same remark is applicable to cows intended for the pail. Their horns should be fair and smooth, the forehead broad, udders white, yet not fleshy, but thin and loose when empty, (to hold the greater quantity of milk,) but large when full.

Besides the rules above stated, there are some particulars with regard to the *age* of cattle and sheep, which merit the farmer's consideration.—Neat cattle cast no teeth until turned two years old, when they get two new teeth; at three they get two more; and in every succeeding year get two until 5 years old, when they are called *full-mouthed*. Though they are not properly full-mouthed until six years old, because the two corner teeth, which are last in renewing, and are not perfectly up until they are six.

The horns of neat cattle also supply another criterion by which the judgment may be assisted, after the signs afforded by the teeth become uncertain. When three years old their horns are smooth and handsome: after which period there appears a circle or wrinkle, which is annually, increased as long as the horn remains; so that, according to the number of these circles or rings the age of a beast may be ascertained with tolerable precision.

Sometimes the wrinkles are defaced, or artificially removed, by scraping or filing. This is a fraudulent practice, too frequently adopted, in order to deceive the ignorant or inexperienced purchaser, as to the real age of the animal. These circles, however, must not be confounded with those ringlets which are sometimes found at the root of the horn, and which are a pretty sure indication that the animal has been ill-fed during its growth.—*Farmer's School Book*.

Flowers.—Who would wish to live without flowers? Where would the poet fly for his images of beauty if they were to perish forever? Are they not the emblems of loveliness and innocence—the living types of all that is pleasing and graceful? We compare young lips to the rose, and the white brow to the radiant lily; the winning eye gathers its glow from the violet, and the sweet voice is like a breeze kissing its way through the flowers. We hang delicate blossoms on the silken ringlets of the young, and strew her path with the fragrant bells, when she leaves the church. We place them around the marble face of the dead in the narrow coffin, and they become symbols of our affections—pleasures remembered and hopes faded, wishes flown and scenes cherished the more that they can never return. Still we look to the far-off spring in other valleys; to the eternal summer beyond the grave, when the flowers which have faded shall again bloom in

starry fields, where no rude winter can intrude. They come upon us in spring like the recollection of a dream, which hovered above us in sleep, peopled with shadowy beauties, and purple delights, fancy-broidered. Sweet flowers! that bring before our eyes scenes of childhood—faces remembered in youth, when Love was a stranger to himself! The mossy bank by the way-side, where we so often sat for hours drinking in the beauty of the primroses with our eyes; the sheltered glen, darkly green, filled with the perfume of violets, that shone in their intense blue, like another sky spread upon the earth; the daughter of merry voices; the sweet song of the maiden—the downcast eye, the spreading blush, the kiss ashamed at its own sound—are all brought back to the memory by a flower.—*Miller*.

Apple Bread.—A French officer has invented and practised with great success, a method of making bread with common apples, very far superior to potatoe bread. After having boiled one-third of peeled apples, he bruised them while quite warm into two-thirds of flour, including the proper quantity of yeast, and kneaded the whole without water, the juice of the fruit being quite sufficient.—When the mixture had acquired the consistency of paste, he put it into a vessel, in which he allowed it to rise for about twelve hours. By this process he obtained a very excellent bread, full of eyes and extremely palatable and light.

Great Price of Sheep.—At the annual fair of the sheep farms of Rambouillet, in June.

Fifty rams were put up; and such was the eagerness of the farmers to improve their flocks, that four of the finest produced upwards of 1,800fr each; but one most remarkable for its beauty and symmetry was sold to M. Symphat a farmer at Lyonvil, in the Aisnet, at the enormous price of 2,687fr. 50c.; another to M. Bouvry, at Poilcourt, in the Ardennes, for 2,150fr; and a third, to M. Auberge, at Cramayal, in the Sienne-et-Marne, for 2,000fr. The lowest price was 274fr., and the average produce of the whole fifty rams was 594fr. each. Thirteen ewes were sold singly at prices averaging 75fr. 25c. each, and 58 others were knocked down in one lot for 3,117fr. 50c.

If they do not have large sheep at Rambouillet, we know not where they could look for them.

The wheat crop in Talbot is estimated at about one fourth of an average crop. The crop of oats, just gathered in, is said to be very luxuriant. The prospect for corn is very promising; it is believed there will be more than an average crop.—*Easton Gazette*.

New-England Wool Crop.—Wool has become the principal staple of New-England, and its production is rapidly multiplying the number of rich farmers in all parts of its territory.—There are supposed to be in Vermont 1,000,911 sheep; in New-Hampshire 465,179; Connecticut 300,000, and in Massachusetts, Maine, and Rhode-Island, enough to make up the round number of 6,775,090. The value of the annual wool crop is estimated at \$12,195,112.—*Silk Cult*.

Tomatoes.—Mrs. Child gives the following directions for cooking this valuable vegetable.

"Tomatoes should be skinned by pouring boiling water over them. After they are skinned, they should be stewed half an hour, in tin, with a little salt, a small bit of butter, and a spoonful of water." This method is for sauce to eat with roast meat for dinner. When plucked green, tomatoes make an excellent pickle. An excellent catsup may be made of them, when ripe, in the following manner. "The vegetable should be squeezed up in the hand, salt put to them, and set by for twenty four hours, after being passed through a sieve, alspice, pepper, mace, garlic, and whole mustard seed should be added. It should be boiled down one third, and bottled after it is cooled. No liquid is necessary, as the tomatoes are very juicy. A good deal of salt and spice is necessary to keep the catsup well." It is delicious with roast meat; and a cupful adds much to the richness of soup and chowder. The garlic should be taken out before the catsup is bottled.

ASSES AND STRAW CUTTERS.

I. I. HITCHCOCK, Agricultural agent, Philadelphia, offers for sale several JACKS and JENNETS, equal in size and in their qualities of good breeders to any animals of the species in the United States, ranging from 13 to 14 hands high, of good age, the Jacks all thoroughly proved, several of the females having foals now by their sides, and all in foal by first rate jacks.

He is also agent for the sale of Green's patent Straw Hay and Stalk Cutter, a late invention, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1st. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it very efficiently.

2d. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed for any other machine, even when worked by horse or steam power.

3d. The knives (12 in number) owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter; and when they have to be ground, they are as easily taken out and replaced, as a scythe or hay knife.

4th. The machine is simple in its construction, consisting of very few parts or pieces, which are made and put together very strongly. It is therefore not so liable as the complicated machines in general use, to get out of order. It is about 3½ feet long, 2 feet broad, and 3 feet high, weighing about 150 lbs.

STRONG TESTIMONY.

MOBILE, Ala. Jan. 25, 1837.

I. I. Hitchcock, Esq.—Dear sir—I observe by the Farmer and Gardener, that you are agent for the sale of 'Green's patent Straw Cutter.' I have had one in use on my farm in North Alabama for fifteen months. I feed with cut oats about 50 head of horses, mules, &c. and find it of great use—far superior to any other cutting knife I have ever seen, and I have them that cost from 5 to \$50. Indeed its real value can be known only by those who use it.

I have commenced a plantation in Mississippi, and will this spring sow 50 acres of oats; and as a means of economy as well as an immense saving of labor, I wish my farm supplied with one of the machines above mentioned. Will you please to select me a good one, have it well oiled and packed, and shipped to this city.

JAMES ELLIOTT, Gainsville, Ala

The machine is kept at No. 5 South Fifth street, Philadelphia. Price \$32 in the store. When sent out of the store, the packing, drayage and shipping will cost about \$1 more, say \$33. Address I. I. HITCHCOCK, au 22 eowtf Philadelphia.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 50	7 50
CORN, yellow.....	bushel	93	95
White,.....	"		102
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana—Alabama.....	"		13½
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 75	9 00
" " wagon price,	"	8 25	
City Mills, super.....	"	8 00	8 25
" extra.....	"	8 50	
Susquehanna,.....	"	9 37	
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhd.	hhd.	24 00	
do. in bbls.	bbl.	5 25	
GRASS SEEDS, wholes. red Clover,	bushel.	6 50	7 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"	75	1 00
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 75	6 87
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	32	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	87	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	3 37	3 50
Ground,.....	barrel	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	65	70
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 75	1 80
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 10	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hds.....	"		37
" wagon price, ..	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 75	
To Wheeling, ..	"	2 00	
Wool, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.		13½
Shoulders,..... do.....	"		11
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	10	10½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"		1 75
Eggs,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par			VIRGINIA.	
Branch at Baltimore,.....	do			Farmers Bank of Virgin.	2
Other Branches,.....	do			Bank of Virginia,.....	do
MARYLAND.				Branch at Fredericksburg	do
Banks in Baltimore,.....	par			Petersburg,.....	do
Hagerstown,.....	1a			Norfolk,.....	do
Frederick,.....	do			Winchester,.....	do
Westminster,.....	do			Lynchburg,.....	2½
Farmers' Bank of Mary'd, do				Danville,.....	do
Do. payable at Easton,....	1			Bank of the Valley, ..	2
Salisbury,.....	2 per ct. dis.			Branch at Romney, ..	2½
Cumberland,.....	3			Do. Charlestown, ..	2
Millington,.....	do			Do. Leesburg,.....	2
DISTRICT.				Wheeling Banks,	4
Washington, ..				Ohio Banks, generally	6a7
Georgetown, ..	Banks, 1p.c.			New Jersey Banks gen.	5
Alexandria, ..				New York City,.....	1
PENNSYLVANIA.				New York State,....	3a4
Philadelphia,.....	1a			Massachusetts,.....	3a3½
Chambersburg,.....	1			Connecticut,.....	3a3½
Gettysburg,.....	do			New Hampshire,....	3a3½
Pittsburg,.....	3½			Maine,.....	3a3½
York,.....	1			Rhode Island,.....	3a3½
Other Pennsylvania Bks.	4			North Carolina,....	6
Delaware [under \$5]....	6			South Carolina,....	8a10
Do. [over 5].....	2			Georgia,.....	do
Michigan Banks,.....	10			New Orleans,.....	15
Canadian do.....	10				

CABBAGE SEED, &c.

FOR SUMMER AND FALL SOWING.

Just received, an additional lot of Early York Cabbage Seed of the Scotch short stalk variety, imported from Edinburgh. This cabbage is full as early as the English Early York, larger head, very dwarf, and is decidedly superior to all early cabbage seed for fall sowing. Also, Early dwarf Paris, Early Battersea, Early George, Bullocks-heart, Flat Dutch, Savoy and other Cabbage Seeds. Large Holland Cauliflower, and Kale Seed, of various sorts, among which is the Delaware Kale, the best sort for fall sowing, color dark green, tinged with purple, the leaf tender and curled.

IN STORE,

Corn Salad, Curled Endive, early Curled Cilicia, brown Dutch and large white head Cabbage Lettuce seeds; black and white Spanish and yellow Turnip Radish seed for fall sowing, the latter a superior sort, and will produce well if sown at any season of the year.

Will be in store in a few days, the Pye Plant or Tart Rhubarb seed, producing a very choice vegetable, and should be cultivated in every garden.

ROBT. SINCLAIR, jr. & CO.

Light, near Pratt street wharf.

aug 22

A R V P 2a 3w 3w

AMERICAN FARMER

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

DURHAM & AYRSHIRE CATTLE.

The subscriber is authorized to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Marmadonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention. EDWARD P. ROBERTS,

Editor Farmer and Gardener, Baltimore, Md.
sep 12 4t

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work again, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work, — a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdin & Co's. fronting Grant and Ellicott-sts., in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf.

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THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

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BALTIMORE, MD. SEPTEMBER 19, 1837.

Vol. IV.

THIS publication is the *successor* of the late
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BALTIMORE: TUESDAY, SEPTEMBER 19, 1837.

It is mentioned by Sir Humphrey Davy, upon the authority of an article in the Philosophical transactions for 1799, that in the years 1795 and 1796, when almost the whole crop of corn, (wheat,) in the British island, was blighted, the varieties obtained by crossing, *alone* escaped, though sown in several soils, and in very different situations.

The manner of crossing is very simple, merely by sowing different kinds of wheat, promiscuously in the same field, the product of which will be a new variety. The fact as detailed above seemed to us to be important to be known, we have therefore abstracted it with a view of laying it before our readers, and would suggest, that if the production of a new variety, by this simple process of crossing, has the tendency to impart superior capacity to it to resist disease, would it not be well for wheat-growers to make the experiment. It might be tried on a small scale first, and if found to be of utility, it would be an easy matter to extend it to any desirable limit.

Spring Wheat—Not having yet disposed of the whole of the 140 bbls. of spring wheat advertised by us, we take this occasion to say, that those who may want to procure one or more barrels, would do well to apply without delay, or they may be too late.

Price of Cotton—We are gratified to find by the last advices from England, that the price of cotton has improved, and was looking up both in demand and value. This we know will be pleasing intelligence to our southern and south-western subscribers, who are deeply interested in all that gives appreciation to the great staple of that region of our country. Should the price continue to improve to any considerable extent, the enterprising cotton-planters will very soon be relieved from their embarrassments arising out of the sud-

den depression in the value of cotton last spring; for through their prudent foresight, in ploughing up portions of their cotton fields and putting them down in corn, they will be relieved from a very onerous tax,—the purchase of corn,—and will enter the market with their new crops, in a much sounder condition, notwithstanding the depreciated value of their cotton, than they have been in for years; for if their cotton crops do not bring as much, being relieved from the drawback to which we have alluded, the most of them will have less demand for the proceeds of them by several thousands of dollars.

This is the month for destroying weeds and bushes, and should be improved. If dock and similar pests be cut off at the ground with a hoe, they will in nine cases out of ten perish, from the two-fold cause of bleeding and exposure to the frosts of the approaching winter. So also, if bushes and shrubs be cut off, the same causes will operate to their destruction.

We gathered our early patch of Dutton corn on the 17th of August, when it was sufficiently hard for grinding. We have some of it shelled, and intend to send a grist of it to the mill to try its virtue in bread. If the meal should prove as sweet as the roasting ears were, we shall be satisfied, for of a verity they were most luscious.

Cheap Thrashing Machines—We observe by an advertisement in the New York Evening Star, that a Mr. E. Warren of that city has thrashing machines, made in the strongest manner of wrought iron and wood, which are represented as not being liable to get out of order, and thrash all kinds of grain equally well, which he sells at from \$20 to \$40 a piece. Machines at \$25 and \$30 with one or two horses will thrash from 80 to 160 bushels of wheat per day—those at \$40 designed for large farmers, thrash from 200 to 300 in the same time. If those machines will do the work here represented, they certainly are cheap, for there is no more necessary implement on a farm, whether the economy of time or money be considered.

We have mentioned these articles with a view of asking our kind friend of the New York Farm-

er to ascertain and publish in his next paper, what is the cost of the horse power by which these machines are propelled. If that be correspondently low, we should say that Mr. Warren will merit the thanks of the agricultural community. Although all acknowledge the superiority of the manner of getting out grain by a thrashing machine over that of the *flail*, or the more slovenly way of *treading* it out by horses, yet the expense of the former has hitherto deterred many small farmers from procuring one.

We expect in our next to be able to lay before our readers an account of the great sale of Durhams, which took place at Philadelphia on the 12th instant, having taken steps to procure a copy of the sales with that view.

We are pleased to find by our exchange papers that the mulberry and silk culture is very rapidly gaining favor in the South and West.

FLY IN TURNIPS.

Mr. John Birkett, in a letter published in the Carlisle Patriot, gives the following recipe as being preventive of the ravages of the turnip fly:

"To a quart of turnip seed add one ounce of brimstone finely powdered, putting both into a bottle large enough to afford room to shake them well together, for four or five days previous to sowing; keep the bottle well corked."

In addition to the above, we believe it would be found useful, just at the moment when the turnips are coming up, to sow in the proportion of 4 lbs. to the acre, of flour of sulphur; this should be sown early in the morning, when the dew is on, so that the powder may adhere to the leaves of the plants. We question whether sufficient of the scent of the brimstone would be communicated to the plant from the process of managing the seed recommended by Mr. Birkett; but we do believe, that by combining his plan with the subsequent sowing on the plants here alluded to, after they come up, that they would be rendered entirely repulsive to the appetites of these destructive insects. Another good would be effected by the operation, as the sulphur is a most powerful manure, and possesses in an eminent degree the power of attracting moisture from the atmosphere, a thing in which turnips delight, and which could not fail to promote their growth.

[From the Horticultural Register.]

OF THE ANALYSIS OF SOILS, AND OF THE AGRICULTURAL RELATIONS BETWEEN SOILS AND PLANTS.

We have seen that the earths have a threefold capacity: that they receive and lodge the roots of plants and support their stems; that they absorb and hold air, water and mucilage—aliments necessary to vegetable life; and that they even yield a portion of themselves to these aliments. But we have also seen, that they are not equally adapted to these offices; that their parts, texture, and qualities are different; that they are cold or warm, wet or dry, porous or compact, barren or productive, in proportion as one or other may predominate in the soil: and that to fit them for discharging the various functions to which they are destined, each must contribute its share, and all be minutely divided and intimately fixed. In this great work nature has performed her part; but as is usual with her, she has wisely and benevolently left something for man to do.

This necessary march of human industry, obviously begins by ascertaining the *nature of the soil*. But neither the touch, nor the eye, however practised or acute, can in all cases determine this. *Clay* when wet, is cold and tenacious—a description that belongs also to magnesian earths: *sand* and *gravel* are hard and granular; but so also are some of the modifications of lime; *vegetable mould* is black and friable, but not exclusively so: for schistous and carbonaceous earths have the same properties.

It is here, then, that chemistry offers herself to obviate difficulties, and remove doubts; but neither the apparatus nor the process of this science, are within the reach of all who are interested in the inquiry, and we accordingly subjoin a method, less comprehensive, but more simple, and sufficiently exact for agricultural purposes, and which calls only for two vases, a pair of scales, clean water, and a little sulphuric acid.

"1st. Take a small quantity of earth from different parts of the field, the soil of which you wish to ascertain, mix them well together, and weigh them; put them in an oven, heated for baking bread, and after they are dried, weigh them again; the difference will show the *absorbent power of the earth*. When the loss of weight in 400 grains, amounts to 50, this power is great, and indicates the presence of much animal or vegetable matter; but when it does not exceed 20, the absorbent power is small, and the vegetable matter deficient.*

"2d. Put the dried mass into a vase with one-fourth of its own weight of clear water; mix them well together; pour off the dirty water into a second vase, and pour on as much clean water as before; stir the contents, and continue this process until the water poured off is as clear as that poured on the earth. What remains in the first employed vase, is *sand, siticious or calcareous*.

"3d. The dirty water, collected in the second, will form a deposit, which (after pouring off the water,) must be dried, weighed, and *calcined*. On weighing it *after* this process, the quantity lost will show the portion of *animal and vegetable mould contained in the soil*; and

*See Davy's Elements.

"4th. This calcined matter must then be carefully pulverized and weighed, as also the first deposit of sand, but without mixing them. To these, apply (separately,) sulphuric acid, and what they respectively lose in weight, is the portion of *calcareous or aluminous earths* contained in them. These last may be separated from the mass by soap lye, which dissolves them."†

Here is the light we wanted. In knowing the disease, we find the cure. Clay and sand qualify each other; either of these will correct an excess of lime; and magnesian earth, when saturated with *carbonic acid*, becomes fertile.

But entirely to alter the constitution of a soil, whether by mechanical or other means, is a work of time, labor, and expense, and little adapted to the pecuniary circumstances of farmers in general. Fortunately, a remedy, cheaper, more accessible and less difficult, is found in that *great diversity* of habits and character, which mark the vegetable races. We shall, therefore, in what remains of this section, indicate the principal of these, as furnishing the basis of all rational agriculture.

1st. Plants have different systems of roots, stems, and leaves, and adapt themselves according to different kinds of soil. The Tussilago prefers clay; the Spargula, sand; Asparagus will not flourish on a bed of granite; nor Muscus Islandicus on one of alluvion. It is obvious that *fibrous rooted* plants, which occupy only the surface of the earth, can subsist on comparatively stiff and compact soils, in which those of the leguminous and cruciform families would perish, from inability to penetrate and divide.

2d. Plants of the same or of a similar kind, do not follow each other advantageously in the same soil. Every careful observer must have seen how grasses alternate in meadows or pastures, where nature is left to herself. At one time timothy, at another clover, at a third red top, and at a fourth blue grass, prevails. The same remark applies to forest trees; the original growth of wood is rarely succeeded by a second of the same kind; pine is followed by oak, oak by chestnut, chestnut by hickory. A young apple tree will not live in the place where an old one has died; even the pear tree does not thrive in succession to an apple tree; but stone fruits will follow either with advantage. "In the Gautinois, (says Bosc,) saffron is not resumed but after a lapse of twenty years; and in the Netherlands, flax and colzat require an interval of six years. Peas, when they follow beans, give a lighter crop than when they succeed plants of another family."*

3d. Vegetables, whether of the same family or not, having a similar structure of roots, should not succeed each other. It has been observed that trees suffer considerably by the neighborhood of

† This method of analyzing soils is that described by M. Bosc, member of the Institute of France, &c., and recommended to French agriculturists.

* The ill effect of a succession of crops of the same kind was not unknown to the Romans. We have proof of this in the following passage of Festus: Restibilis ager fit qui continuo biennio seritur farreo spico, id est aristato, quod, ne fiat solent, qui pradia locant, excipere.

sainfoin and lucerne, on account of the great depth to which the roots of these plants penetrate—whereas culmiferous grasses do them no harm.

4th. Annual or biennial trefoils prevent the escape of moisture from sandy and arid soils, and should constantly cover them in the absence of other plants;† while *drying and dividing crops*, as beans, cabbages, chicory, &c. &c., are best fitted to correct the faults of stiff and wet clays.

5th. When plants are cultivated in rows or hills and the ground between them is thoroughly worked, the earth is kept open, divided, and permeable to air, heat, and water, and accordingly receives from the atmosphere nearly as much alimentary provision as it gives to the plant. This principle is the basis of the drill husbandry.

6th. All plants permitted to go through the phases of vegetation, (and of course to give their seeds,) exhaust the ground, in a greater or less degree; but if cut green, and before seeding, they take little from the principle of fertility.

7th. Plants are exhausters in proportion to the length of time they occupy the soil. Those of the culmiferous kinds (wheat,* rye, &c.) do not ripen under ten months, and during this period, forbid the earth from being stirred; while, on the other hand, leguminous plants occupy it but six months, and permit frequent ploughings. This is one reason why culmiferous crops are greater exhausters than leguminous: another is, that the stems of culmiferous become hard and flinty, and their leaves dry and yellow, from the time of flowering till the ripening of the seed—losing their inhaling or absorbing faculties—circulating no juices, and living altogether in their roots, and on aliments exclusively derived from the earth; whereas leguminous or cruciferous plants, as cabbages, turnips, &c. &c., have succulent stems, and broad and porous leaves, and draw their principal nourishment from the atmosphere. The remains of culmiferous crops also are fewer, and less easily decomposed, than those of the leguminous family.

8th. Meadows, natural and artificial, yield the food necessary to cattle, and, in proportion as these are multiplied, manures are increased, and the soil made better. Another circumstance that recommends them is, that so long as they last, they exact but little labor, and leave the whole force of the farmer to be directed to his arable grounds.

9th. Grasses are either fibrous or tap-rooted, or both. The remarks already made, in articles 1, 2, and 3, apply also to them. Timothy, red top, oat grass, and rye grass, succeed best, in stiff, wet soils. Sainfoin does well on soils the most bare, mountainous, and arid; lucerne and the trefoils, (or clovers,) only attain the perfection of which they are susceptible, in warm, dry, calcareous earth:

10th. The ameliorating quality of tap-rooted plants is supposed to be in proportion to their natural duration; annual clover, (lupinella,) has less of this property than biennial, (Dutch clover,) bi-

† The "Sterilis tellus media versatur in æstu," of Virgil, shows the opinion he entertained of a husbandry that left the fields without vegetation.

[*Spring wheat and rye forms exceptions to this rule, as they will mature in four months.—Editor Farmer and Gardener.]

ennial less than sainfoin, and sainfoin less than lucerne.

11th. Any green crop ploughed into the soil, has an effect highly improving, but for this purpose, lupins and buckwheat, (cut when in flower) are most proper.

12th. Mixed crops (as Indian corn, pumpkins, and peas, and oats) are much and profitably employed, and with less injury to the soil than either corn or oats alone.†

†The good effect of these mixtures was known to the ancients, from whom the practice has descended to us. What a picture of fertility and abundance have we in the 22d chap. 18th book of Pliny's Natural History: "Sub vite seritur frumentum, mox legumen, decinde olus, omnia, eodem anno, omniaque aliena um bra aluntur."

Questions Respecting the economy of cutting up Corn—Topping cornstalks should not be Practiced.

It has we think been sufficiently ascertained, that when corn is injured by an early frost, cutting it up contributes nothing to its relief, and nothing to its subsequent improvement. It is we think better, in such cases, not to molest it, for unless the frost be a very deadly one, the corn will still derive nutriment from the stalks and leaves. There is another question related to this which we think merits the attention of agriculturalists. The question is this: Is it, in general, good practice to cut up corn at all, or to cut up the stalks while the ears are attached to them: We are not for war, and if we were disposed to answer this question in the negative, we should scarcely dare do it, knowing as we do that this would bring us into conflict with almost universal opinion. We will, however, suggest certain considerations, and leave the question to be adjudicated and settled by our readers.

1. Cutting up corn at any time before the leaves are fully dead, does undoubtedly injure the crop in some degree, affecting it probably both as to quantity and quality.

2. When corn is cut up, and the stalks secured in the best manner they can be, it rarely fails that some of them get down, and thus both the corn and stalks are damaged by exposure to the weather. If it were not so, the large butts and stems of the stalks are of little value for fodder, for no sort of stock will eat them, unless compelled to by dire starvation.

3. If the stalks be left standing in the field cattle will consume quite as great a portion of them in the fields after the corn is gathered, as they would if they had been cut and gathered to the barn.

4. As materials for dung, stalks cannot be disposed of to better advantage than to be allowed to remain where they grew, and there be mixed with the soil, as is usually done by subsequent tillage.

5. Cutting up and securing a well grown crop of corn, is a heavy and toilsome labor, involving, together with the subsequent ingathering of the stalks, no trifling item of expense.

If these things be true, is it, in general, good practice to cut up corn at all? In times of threatened scarcity of winter feed for stock, it may be, and probably is, wise and prudent to do it. It may too be profitable to do it, in the vicinity of

cities and large villages, where fodder commands high prices.

In agitating the question thus far, we have supposed that the stalks, if they were cut and gathered to the barn, were to give to stock, without further cutting or any other preparation. In the case of farmers who have good cutting machines, and intend by cutting to prepare their stalks for the use of animals, the question may assume an entirely varied aspect.

With a few occasional exceptions, our practice for several years has been, to let our corn remain unmolested, until the time of harvesting it. Sometimes we have cut up and gathered the stalks, after the corn had been separated from them. This when corn is harvested early, can be done to advantage, and if cutting be practiced at all, we think this is the better way. More generally we have left our stalks to be depastured in the field where they grew.

The advantage of practicing as we have done, are supposed to consist, 1st. In a greater quantity and better quality of corn. 2nd. In exemption from much toilsome and expensive labor. The only loss known to result from this practice, consists in the inferior quality of the stalks to be consumed as fodder. It does not appear that, as to quantity, there is any loss, for cattle will consume as great a portion of the stalks, while depasturing in the field, as they would if they had been cut, as is usually practiced, and given out in the barn yard. Neither does it appear that any thing is lost, in connection with the economy of manures. Or if there be any loss in this article, certainly it is very small.

We offer these remarks for the consideration of farmers. The question is, are the advantages which, in ordinary cases, result from cutting up corn while yet in a state of imperfect maturity, sufficient to balance the damages which it does to the crop, and the expense of doing it?

Hitherto we have said nothing relative to the practice of topping cornstalks, which formerly prevailed almost universally, and prevails now to some extent. The economy of this practice has been the subject of so many experiments, and so much light in regard to it has of late been gained, and disseminated in the public journals, that it seems scarcely necessary to reargitate the subject. By many well conducted experiments, it has been proved most conclusively, that topping the stalks of corn, while so green as to be worth topping, essentially injures the crop, often causing a reduction equal to one fifth of its value. Among enlightened farmers, the practice of topping has fallen into general disrepute, and as it is most clearly an unprofitable practice, it should be entirely abandoned.

DAN BRADLEY.

Marcellus, Feb., 1837 [Genesee Farmer.

RIPENING OF CORN AND PLOUGHING OF GREEN CROPS FOR MANURE.

In proportion as the fecundated ear increases in magnitude, the leaves near the root begin to grow yellow and dry in consequence of the stem drawing from them the carbonaceous materials which they contain. As the growth advances, the base of the stem becomes yellow and dry in its turn, while the upper part remains green, and continues to nourish the ear.

The beautiful researches of M. Biot, afford interesting explanations of several agricultural practices hitherto not well understood, at least in a scientific point of view. For example, when the base of the stem begins to become yellow and dry, if the corn be then cut down, though the grain is not ripe, it will continue to be nourished at the expense of the green matter in the upper part of the stem, almost, if not quite as well, as if it had remained uncut, and will thus ripen well, while having been thus cut down early, much loss from shaking is prevented, besides the chance of loss by lodging from heavy rain and wind. M. Biot's experiments, from his well-known high character for rigid accuracy, are, therefore, well calculated to give farmers confidence in cutting down their corn, as soon as the lower leaves and the lower part of the stems are yellow and dry, though the upper parts be green.*

Again, as the leaves and stems of plants while green, contain sugar and other carbonaceous materials for nourishing the seeds and bringing them to maturity, it follows that, if they are in this state ploughed down into the soil, they must greatly enrich it with all the products ready prepared for the nourishment of plants.

It has been proved, indeed, by other experiments previous to those of M. Biot, that the leaves and all the green parts of plants decompose the carbonic acid gas of the ear, appropriating the carbon, and setting free the oxygen; hence it has been inferred, that the carbon thus derived contributes to form their mass of sugar and gum, additional to the sap absorbed from the soil by their roots. This view is corroborated by the difference which M. Biot has shown between the composition of the leaves of wheat and the stem, which is more especially supplied from the soil. If then, a portion of the solid frame-work of plants is derived from the air in the form of carbon, the ploughing down of green crops for the purpose of manure, gives to the soil more than the plants, while growing, had extracted from it.

* It is a good practice to cut down every kind of grain before it is fully ripe in the grain or the straw, and that for the reasons just enumerated in the text. But, as M. Biot's observations and common practice do not exactly agree as to the symptoms which determine the time of cutting, it is as well to note the difference. In a fine season, farmers cut down when they find the neck of the straw immediately under the ear free of juice, when twisted round between the finger and thumb; and do not wait until "the lower part of the stems are yellow and dry," because they find in such a season the straw to die from the ear downwards. This fact, we conceive, does not militate against M. Biot's theory, for as the absorbing power of the ear at the top of the stem is always powerful, it must be the more powerful the nearer the ear approaches maturity, and, of course, the part of the stem nearest the ear should first become dry. In a bad season, on the other hand, the lower part of the stem first becomes yellow and dry, after which, of course the crop is not allowed to stand; for, in such a season, the ear never becomes mature, having, of course, less absorptive power, whilst the vitality of the root is destroyed by the combined effects of bad weather and the ungenial state of the soil.

Ed.

We may well conclude with M. Biot, that "every positive determination in science is susceptible of progress and of useful application, though these may be distant. A microscopical observation, or an optical property, which at first appears only curious and abstract, may thus in time become important to agriculturists and manufacturers."—*Quarterly Journal of Agriculture.*

[From the New England Farmer.]
SWAMP CULTURE.

MR. COOKE, —SIR—I wish you to insert in the Silk Grower and Agriculturist, a communication of Mr. Conant of Jeffrey, relative to swamp culture, published in the N. H. Sentinel in March 1832, and beg leave to submit the following queries to the consideration of Mr. C.

What is the depth of mud in the swamp, and what are the specific of proprieties of the substratum?

Was it necessary in the outset, to cut it into so small pieces by ditching, and is it still necessary to keep all the ditches open.

Does water continue in the ditches through the season.

Are there many springs in or about the swamp?

What was the variety of timber originally growing upon it?

Mr. Conant's views are requested upon the best method, and probable profit of reclaiming the swamps in this section of the country which vary in area from one to five acres, and in depth of mud from one to six feet, with a rocky, impermeable and almost impenetrable substratum; abounding in spring upon the margin, and generally covered with hard wood, mostly ash.

S. WOODWARD, JR.

Gilsum, April 15th, 1837.

The following is the communication alluded to by Mr Woodward. Answers to Mr W.'s queries will be cheerfully inserted in some future number of this paper, should Mr C. think proper to furnish them.

MR. EDITOR:—I have been cultivating a piece of meadow or swamp land of about six acres, and have often been inquired of respecting the method of cultivation and expenses; what the crops were, profits, &c. The swamp alluded to when I bought with my farm eighteen years ago had been partly cleared and was very wet, owing to the small brook that once passed through it being filled up with brush, &c.; it produced some joint grass, but principally flags, hard-back and moss. I first commenced by opening the brook, which drained it and killed all the flags, and nearly all the grass. I then cut a ditch round a piece of about eighty square rods, cut off the stumps and the most prominent bunches of moss, and after it was frozen carted on two hundred and fifty loads of gravel and levelled it, carted on ten loads of fall manure, and in the spring following spread it, sowed on oats and grass seed. I had a good crop of oats, and the following season it was estimated by good judges that we had twenty-five hundred of timothy and clover hay. The next year I encircled about half an acre more with a broad ditch; cut the turf and moss into squares of twenty inches in diameter each, and turned it over with a prong hook, took out all the stumps and roots, leaving it level as possible, and carted on two hundred loads of gravel, and eleven of manure. In the spring

following sowed oats and grass seed, spreading on seventeen bushels of house ashes. I had a good crop of oats; and the next year one and a half tons of the best timothy hay. The next piece of about half an acre I cultivated in the following manner; after enclosing it with a ditch, began on one side and cut the turf into squares of about twenty inches diameter, piled them out of the way, and dug up the mud eight or ten inches deep, then cut another tier of squares, turned them into the trench dug as before, laid the mud on to them in like manner until the piece was completed, taking out all the stumps, roots, &c. The next spring planted it with potatoes, it yielding at the rate of three hundred bushels to the acre. After taking off the crop in the fall we levelled the mud, and in the winter carted on about twenty loads of gravel, ten of manure and six of leached ashes. In the spring after spreading all as equal as possible, sowed oats and grass seed. The oats grew very large as did the grass the next season. The method last mentioned, I have made use of in cultivating the remainder of the old or cleared part of the meadow. Of that part covered with wood we measured off one acre, cut a large ditch around it, cut by the roots all the wood and brush, carried off the wood and stumps, burned the brush and carried on sixteen loads of manure; and in the spring following laid out the manure at suitable distances on the top of the swamp; and planted it with potatoes, and we raised three hundred and fifty bushels. After the crop was off we levelled it, taking out all the roots near the top of the swamp, and sledged on ten loads of leached ashes. In the spring following spread them, and sowed on oats and herds grass seed. The oats grew large and lodged down early, so that they did not fill; the grass took well and bids fair for a large crop next season. The remainder of the swamp I have cleared and planted in like manner last season. The expense of ditching, digging up and turning an acre of the old meadow, in the way above described, is about thirty six dollars. The expense of cutting the wood, and brush from the above mentioned acre was twenty dollars.

There was twenty-one cords of wood which paid for clearing. The profit of the potato crop after paying the expenses was twenty dollars. Four acres of this land (which by the way was all there was to grass then) produced the last season at twice cropping as near as could be estimated, sixteen tons of best timothy hay.—Should it be asked if this land will continue to be thus productive, I answer it will not without manuring. It will want a top dressing once in about three years. A mixture of horse manure, loam and ashes I consider the best for the best purpose. Of the different methods I have made use of in cultivating the old part of the swamp, I consider that of digging up or turning the best, as being the cheapest and most productive, it incorporates the manure, gravel and ashes with the mud, causes a fermentation, and produces rapid vegetation. The object of the above description is two-fold. First, to answer the inquiry of numerous individuals as stated above, secondly, hoping that it will come under the notice of some gentleman who has been cultivating this kind of land, will be willing to publish the result of his experience, for I am fully of the opinion, this kind of land when known and

properly cultivated will be the most profitable we have.

JOHN CONANT.

Jeffrey, Jan. 27, 1835.

[From the "Agricultural Papers," of Agricola, in the Downpatrick Recorder.]

THE GREEN CROP SYSTEM.

"The farmer's life displays in every part,
A moral lesson to the sensual heart."

BLOOMFIELD.

To prevent a long digression in my last paper, I was obliged to assume that, though there are some crops which impoverish the soil very much, there are others "which are more grateful to it, and which instead of impoverishing it, afford a reciprocal advantage, by imparting to it richness."—But as this statement contains the fundamental principle of the important system which I am advocating, it should not be taken on trust; and accordingly, the object of my present paper is to show, that the green crop system is not founded on a false assumption, but on an *important truth*. The whole crops of the farmer may be divided into two classes; the grain crops and the green crops. The former are sometimes called *culmiferous* or straw-bearing; and the latter, *leguminous*, from their seeds or leaves being of a much larger kind. Clover, beans, turnips, potatoes, &c., are leguminous plants, or belong to the class called green crops. Now, it has been proved, by experiments made for the express purpose of ascertaining, and is, therefore, beyond a doubt, that plants are not nourished by the soil alone in which they grow, but that much of their sustenance is drawn from the atmosphere; of course, they do not derive the same degree of support from either of these causes—some are nourished more by the earth, and others more by the air. Grain crops are of the former kind. As they have but small leaves, and few of them, and thus present but a small surface to the action of the atmosphere, it is plain that little of their nourishment can be derived from it; they must, therefore, be supported almost entirely by the soil. This is particularly the case when the crops have nearly ripened, when the few leaves they have are withered and dead, or have fallen off; they can then draw, perhaps, no nourishment from the air, but must be supported almost entirely by the soil.—But the fact is not so extensively known as it deserves to be, that, at this period, when the seed is forming, the plants require an extraordinary quantity of nourishment; and hence it is that grain crops are so particularly exhausting to the soil.—In proof of this, I may refer, with confidence, to the experience of any intelligent practical farmer. He knows, that if the grain be allowed to stand uncut after it has ripened, it exhausts the soil exceedingly; but, that if cut green, the impoverishing effects have not been so extensively produced. Now the green crops of leguminous plants, on the contrary, present an extensive surface to the action of the atmosphere, and, therefore, can draw much of their nourishment from it, without requiring to draw so extensively from the soil. A familiar proof of this may be had from the common cabbage. Its numerous broad leaves enable it to draw most of all its nourishment from the atmosphere, and hence it is that cabbages can be preserved for a long time, in a fresh state, if cut and hung up in a damp place. House-leek is an

other plant which has broad succulent leaves; and who does not know that it will grow in the most unfavorable situations? If hoisted on a pole, or laid on a slab of marble, it will flourish most luxuriantly. But this is not all; some plants have been proved to exist, and thrive, and come to maturity, when nourished by the atmosphere alone—growing in pounded quartz, (a substance resembling flint) and supplied with distilled water, to prevent the presence of the smallest particle of earthly matter! Another important fact is, that all the seed of a grain crop comes forward at the same time. Whenever it has properly “shot,” the plant stops growing—its seeds begin to form, its leaves wither, its roots cease to act in the ground, and, when cut down, it is dry and hard. The green crops, on the contrary, bear blossoms and seed at the same time; the roots are continually pushing forward in the ground, and the leaves are green and sappy as before, so that the plant never exerts itself to impoverish the soil. Every one knows, for example, that beans and peas may be pulled from the lower part of the stalk, while the top is bearing blossoms and embryo fruit;—that one branch of a stalk of clover will be in flower and another in seed; and that the top of a potatoe stalk will wave in verdure and bloom, when the crabs and leaves have fallen off the lower part. It may not be out of place to mention here a serious error in which many farmers fall. They allow their rye-grass to remain uncut long after it has come to maturity, alleging as a reason, that “unless it is ‘dead ripe,’ it will never do for seed.” They forget that it is cultivated chiefly for the hay, and not for the seed; and that by allowing it to become ripe, they are disappointed of their object, as much of the seed is lost in the necessary operation of saving the hay. Besides, the quantity or weight of the hay is diminished by the parching and withering it has undergone; its quality is deteriorated, as it is rendered less palatable and less nutritious to cattle; and the fertility of the soil is greatly injured. To prevent these consequences, a small spot should be kept to furnish seed, but all the rest should certainly be cut green; the pasture produced as an aftergrowth would of itself be a sufficient remuneration for the loss of seed. A remarkable difference between the grain crops and green crops is, that the former tend to bind the ground and harden it, the latter to open and pulverize it. This is partly to be accounted for from the difference of their roots. Those of the one kind being numerous and fibrous, unite the different parts of the soil firmly together, without being large enough to produce such an action as would loosen it; those of the other kind being larger and more of an opening nature, cause an action in the soil, during the process of growing, that reduces it to a soft and mouldy state. Another cause is the difference of their fitness to admit moisture. When dew or rain falls upon a grain crop, nearly ripe, it glides down its hard, dry, bare stalk, and settles on the ground; but as this presents a hard-bound surface, it remains there until the greater part of it is carried off again by the heat of the sun. When it falls on a green crop, it receives a shelter under the broad leaves, and, trickling down the stalk, to a soil softened and prepared to receive it, it contributes to moisten it, and render it softer. Of all grain crops, wheat is by far the most severe upon

the soil. It is, in the first place, exceedingly binding, and always leaves the ground in a hard state. Then it occupies the ground so long, that it requires an extraordinary degree of nourishment, from its sowing till its reaping; the weight of the grain, besides, requires a strong stalk, and much earthy matter to bring it to perfection. Of green crops, again, potatoes are the most loosening.—They sink deep into the soil, and by the spreading of their roots in every direction, and the swelling of numerous bulbs, loosen it most effectually. It is said that a crop of potatoes is more effectual, in this respect, than a good ploughing would be. One thing, however, is certain, that no matter what may be the color of the soil when the potatoes are planted, when they are turned up, their beneficial effects are apparent; for the soil is uniformly of a rich blackish color. If I were asked, which of the various kinds of potatoes is most pulverizing and beneficial to the soil? I should answer—no withstanding the foolish prejudices which prevail respecting them—the “cups,” or “west reds.” Besides sinking much deeper into the soil, they are more numerous than other kinds, and, therefore, give it a more thorough turning up. Now, from these facts, what inference can we draw? That a wheat crop should be preceded by the most loosening and fertilizing crop that can be had, viz. potatoes. They clean the ground, and, as is evident from the parallel I have drawn, they put it in a state of complete preparation for the wheat. It is absurd, then, to expect that as good crops of wheat will be produced on fallow-ground, on which there have been no potatoes.—Another conclusion, which is almost self-evident from the facts I have stated, is, that a green crop should succeed wheat, to compensate for the injury which the ground has sustained. This shows how utterly ruinous and unreasonable is the practice of taking several oat crops off the ground, immediately after wheat. Instead of nursing the soil, already too much exhausted, the very vitals are torn from it, and, then, forsooth, it is permitted to “rest itself,” until the omnipotence of idleness has completely restored it! Turnips are very good for the soil, but certainly not as good as potatoes. They derive, perhaps, more of their nourishment from the atmosphere, but their roots do not penetrate so far into the ground to loosen it. They are besides too late of being raised, to admit of being followed by a wheat crop; but they can be advantageously followed up by barley, which also suits a clean dry soil. Clover, too, is particularly fertilizing to the soil in which it is produced. Its lower leaves becoming withered, fall off, and rot about its roots, and thus produce a valuable manure—decayed vegetable matter. Its slimy succulent nature keeps the ground always in a state of fertility, and its numerous dense leaves are particularly adapted for retaining the moisture that has been deposited by rains and dews. Who has not observed the rich unctuous appearance of ground where clover has been cut shortly after the deposition of the manure? I hope, and believe, that I have now proved my assertion, to the satisfaction of all who may honor this paper with their perusal. Let it be remembered too, that, in referring to the reciprocal advantages which arise from a proper rotation of crops, I have not once alluded to manures. If proper changes from grain crops to green, crops, and *vice versa*, would almost of

themselves, suffice to keep the land “in heart,” what might we not expect, when, in addition to this, one fourth of it would be well manured annually? This part of the subject brings me now to the important question noticed. How is the manure to be produced?

AGRICOLA.

March 29.

WILSON'S MOWING MACHINE.

To the Editor of the *N. York Courier & Enq.*:

Please allow me, through the medium of your paper, to lay before your readers an account of Wilson's Mowing Machine, which I had the great satisfaction of witnessing in full operation on the farm of Judge A. Van Bergen, in the township of Coxsackie, on Monday, 7th August, and which I rejoice in asserting, exceeded my most sanguine expectations. It was propelled by one horse, and cut a swath of four feet as fast as the horse could walk, which I suppose to be at the rate of four and a half miles per hour, cutting perfectly smooth, and no doubt falling a greater weight of grass than is usual by the best mowers, as its cut is more regular and closer to the sod, at the same time leaving the grass in winrow so as to supercede the necessity of spreading, by which great time and labour is saved. It is so constructed that the grass or grain can be cut leaving the stubble at any given height, from one and a half inches upwards, by means of a screw at the bottom of the upright shaft. The knives, six in number, are screwed on the periphery of a cylinder wheel, which revolves with great rapidity when in operation, and a constant fine edge is preserved by means of two rifles or stones that are very ingeniously applied to their edge by springs, and managed by thumb screws so as to operate as the nature of the case may require. The horse travels behind the machine in long shafts that are suspended by chains from a pair passing over the moving wheels, and by means of two boxes at the extremity of the shafts for holding weights, the heft of the draft is brought behind the horse, causing the machine to be easily propelled and managed. Indeed its whole arrangement is in excellent keeping, and its operation perfect. It must, without doubt, become to the farming interest of our country a great desideratum. Mr. Wilson deserves more than he can possibly receive for completing that which so many hundreds have failed to accomplish, and which must be the means of opening a new era in the agricultural pursuits of the country. When we reflect that mowing grass and cutting grain are the most essential labor of the farm, and that it must be performed at a particular time, or the hope and dependence of the farmer is blighted and lost, and that in the present mode obtaining the harvest, he is placed, almost entirely at the mercy of laborers, who at times are not to be had under any circumstance, the importance of this highly valuable machine cannot fail to elicit the interest of every well wisher of his country, and the assistance of every enterprising man for its speedy introduction into general use. I have been thus particular in my remarks, having been so highly gratified in witnessing its complete success, in hope to convey the information to the many who should know and join in aiding and advancing an improvement in agriculture that must operate greatly

in producing the effect so much desired, in reducing flour, beef, and indeed all the articles of consumption to that ratio which will enable our vast population to partake of the nourishments. The cultivators of land in the west may now fatten as many cattle as they think proper, for they can find no difficulty in cutting the grass necessary for sustaining them during the winter, which has hitherto been prevented, as the labor was not to be obtained at any price. Indeed I could mention numerous other advantages arising from this truly valuable labor saving machine, but shall leave it for some future opportunity: yet I cannot close these remarks without expressing a hope that Capt. Wilson will receive what he most justly merits, a full reward for his ingenuity, perseverance and industry in accomplishing so desirable an object. I am, sir, with respect, yours truly,
A GREENE COUNTY FARMER.

[From the Turf Register.]

TAMING WILD HORSES—AGAIN!

Mound Farm, Clinton County, Ill.
June 10, 1837.

Mr. Editor:

In your March number, at page 316, you have made some remarks on an article of mine on the subject which is at the head of this communication, calculated to inspire doubts as to the truth of my statements, although you vouch for the respectability of my character. Your correspondent 'G.' in the same number, also seems to question their accuracy, and not only those of mine, but also those of previous correspondents on the same interesting subject. A desire is also expressed, both by yourself and him, that pains should be taken to obtain the *secret* by which Mount was enabled to conquer, in so short a time, that most vicious animal. Since the receipt of that number of the magazine, I have been to Kaskaskia, my former residence, and made more particular enquiries into the case reported to you, and of which I was an eye-witness, and have held conversations with those who are in possession of the secret. They all concur in my account of it, and further assure me that they are in the constant habit of using the means with which Mount operated, and have never failed of success, no matter how devilish the horses were. *I am also in possession of the secret*, and can teach any man acquainted with horses to subdue and render tractable the most ungovernable in one or two hours. *About this there is no mistake.* By the same means, the most *baulky* horse can be made to pull as true as the best dray horse in your city, and oxen can be broke to the yoke, and to pull without flinching, in an hour or more.

Some further facts in relation to 'the roan' on which Mount operated at Kaskaskia were given to me, in substance thus: that the next day, in taking him from the wagon, the driver went behind his legs, unhitched the traces, gave him a kick, and he trotted off to the stable like an old stage horse; and further, when he left town 'roan' was turned loose and trotted after the wagon, never offering to run away, and this, a horse raised in the woods, and but for a few hours under the dominion of man! All this, I admit, is a severe draft upon credulity, but it is as true as that controul has been given to us over the whole brute creation.

I have ascertained to my perfect satisfaction, that the means used have no injurious effects whatever on the spirits of the horse; upon his disposition they act like a charm, and seem to attach him to the person who administers them.

A gentleman who has practised the art assured me that he caught, for his little sister, a wild Point horse, and in one week had so completely gentled him that she rode him every where with the most perfect safety. That the means used, properly administered, will produce the effects spoken of, there is no more doubt than that you have an existence.

SIGMA.

Remarks by the Editor of the Turf Register.

The subject of the above article from 'Sigma' becomes more and more interesting every day. The facts stated by various persons are so strange, so 'out of the usual course of things,' that 'Sigma' himself need not wonder that many people continue to doubt, though they are affirmed to by persons ever so respectable. The facts asserted by 'Sigma' and various other respectable gentlemen, are neither more nor less than what are almost universally believed to be impossibilities. If we were to assert that we could take a wild horse, and in one hour so completely change his disposition and habits as to render him docile and tractable, so that he can be ridden by any person or driven in a carriage, there are few people in the world that would believe us; and yet this is simply the very fact asserted by 'Sigma,' and which we now candidly believe can be done. We did not intend to cast a shadow of doubt on the statement of 'Sigma,' nor do we believe that 'G.' did. We know the character of 'Sigma' too well to doubt what he asserted as a fact within his own knowledge.

The editor of the Turf Register has now the pleasure of announcing that he is in possession of the secret; it has, however, been acquired at too late a day for a trial before the present number goes to press. He is not at liberty at present to publish it, nor communicate it to others, but hopes, after a fair trial shall have been made of it, to obtain permission for its publication. Not having tried the experiment we cannot speak practically of its results; but we are led to believe, from recollections of analogous things and circumstances, that not only horses may be rendered docile, but many, if not all other animals may be domesticated and tamed, or stripped of their wild ferocious propensities by the application of this singular practice. We would remark to 'G.' and several others who have suggested what they supposed was the secret, that nothing mentioned by any of them forms any part of it. There is no stopping the ears with wool, nor applying the affluvium from the arm pits to the nose of the horse, nor severe flagellation, nothing of the kind nor any thing like them in 'the secret.' By the way, we must invent a name for it, for it will make a noise in the world yet.

[From the Library of Health.]

THE SICK HEADACHE.

How often, in our country, do we hear of sick headache! How many hours and days—yes, and at the aggregate years and centuries, of valuable time are lost by it, to say nothing of the suf-

fering it entails! And how rapidly do we find it increasing among us, notwithstanding the numerous certain cures for it, which are prescribed at every corner, by nearly every apothecary, every Indian and steam doctor, and every old woman!

One reason why it increases is, that care and anxiety increase. The questions—What shall we eat, what shall we drink, and wherewithal shall we be clothed, not only agitate the human mind as they always did, but they distress it. Once the wants of the community were comparatively few, and easily supplied. But now that labor-saving machinery and the other items of what we call civilization have brought new articles of food, dress, equipage, &c., to our doors, and a thousand things which would once have been regarded only as luxuries, have become necessities. Once we could be happy with a few things; and if one of these supposed necessities was absent, it did not make us so miserable as the absence of the same proportion of our supposed necessities does now. We touch the world, as it were, at a great many more points than formerly; and this increases our care and anxiety to avoid injury by being properly shielded. But this care and anxiety creates nervousness; and one of the forms in which this nervousness is manifested, is sick headache.

Another reason why the sick headache increases is, that we take the wrong medicine to cure it. We resort almost universally, to some nervous excitant, or as some call it, extraordinary stimulant. One resorts to tobacco, another to spirits, another to opium, another to snuff, another to coffee, another to tea, another to cayenne pepper, and another still to an increased proportion of flesh meat. All these with many, are certain cures for the sick headache; so they say; and so it undoubtedly is. That is, all these, in different individuals, and at different times are known to afford—for the moment—positive relief. But there is not one of them that cures the more common forms of sick headache permanently. The relief is only temporary. Nay, the cause which first produced it, and which was just now called nervousness, is even increased by it. That disease, sensibility of the nervous system of which we speak, may indeed wear out gradually, but none of the above mentioned excitants hasten the process. In general they retard it. The headache sometimes gradually wears out in spite of them. But it would always wear out were they entirely let alone. No person ever found relief from sick headache in a cup of tea, or coffee, or a pinch of snuff, or a glass of brandy, or an extra meal of exciting food, in whom the pain did not, as the consequence, tend to return again, with increased violence.

Another reason why sick headache increases, is because it increases. The matter is easily explained. Multitudes who are subject to it, after a day or two's loss of time and much pain, not only return to their accustomed occupation, whatever it may be, but labor with increased exertion, as if to make up for lost time. And what is still worse, and in some respects inexplicable, though they often discover that their season of headache is rendered more intolerable by overworking or overeating, or by eating of certain substances, they will readily resort again to the same things, or the same excess of labor or food, as if they were entirely ignorant of the whole subject. The more

they are afflicted, the more determined they seem to have it out, in their erroneous course, during their days and weeks of health. And the more these seasons of health are shortened, the more eagerly do they pursue a course of conduct which they are fully sensible will tend to shorten them, as well as to render their seasons of pain more severe.

One individual whom we knew, used frequently to remark, that she was free from her headache as long as she labored moderately, and confined herself to a few crusts of bread. Why then did she not live in this way at all times? Why not confine herself to plain, simple vegetable food and water? Why return to stimulating food and drink, and at alternation of labor with indolence, when she knew perfectly well that they would bring with them a return of the suffering?

No one cause produces more sick headache than the violence which is done, in modern times to the stomach. In the first place, the strange mixtures which are thrust into it are quite enough to destroy it, and through it the health of the brain and nervous system. If the contents of a stomach recently replenished at a fashionable table, could be exposed to view as the contents of an open pail or vessel, few could endure the sight. They would turn away in disgust; and well might. The stomach was never intended, by its divine Author, to hold such heterogeneous mixtures.

In the second place, we throw numerous substances into it which it cannot dispose of but with the greatest difficulty. Of this sort are our gravies, our sauces, our pickles, many of our preserves, our salads, our mince pies, our paste dumplings, our melted butter, our fat meats, our hot buttered flour bread, and our pastry in general.—And even of wholesome things, we strongly abuse our powers of digestion, by our neglect of mastication.

Thirdly,—we swallow numerous substances which are well calculated to inflame the tender lining membrane of our stomachs. We could mention twenty substances in common use as food or drink, which, at the temperature at which they are usually received, could not lie ten minutes on the lining membrane of the mouth or the throat without inflaming it. Nay, more—we could mention several which, under the circumstances above mentioned, would cause a slight degree of inflammation in the palm of the hand, thick and tough as the searfskin is. And does any one believe that such things will not injure the lining membrane of the stomach? In charity to human ignorance we would be glad to believe so. But we cannot. Most of us eat substances daily, which would as certainly inflame our mouths and throats as they pass through them were they not in continual and rapid motion, in passing, and did we not so soon convey them away into a common repository, more remote from the seat of sensation.

In view, then, of the whole subject, let us cease to wonder at the prevalence and even the increase of nervous or sick head-ache. Either that or some other disease must continue to prevail, and even to increase, as long as people continue thus to abuse themselves. It is a blessing that it should be so. Disease in its moderate

forms, such as sick head-ache, is designed to warn us of the danger of our errors—and if we do not heed the warning, it is but just that we should suffer severer punishment.

PLUMBAGO.

It was lately stated in the English papers, that the celebrated Mine of Plumbago, or Black Lead, at Borrowdale, in England, was exhausted, and that no other source of obtaining this useful mineral was known. It has since been stated, in some of the papers of this country, that Plumbago can be obtained in any quantity in the vicinity of RALEIGH, in NORTH CAROLINA. To confirm this statement, we have pleasure in publishing the following extract from a Geological Report made to the Legislature of North Carolina, several years ago, by Professor OLMSTED, then Professor of Chemistry and Mineralogy at the University of that State, and at present Professor of Mathematics in Yale College.—*Nat. Intelligencer*.

"This great deposit of Black lead," says the Professor, "lies a little westward of RALEIGH.—The whole formation consists of a great number of parallel beds, varying in width from a few inches to twenty feet. They lie in a singular variety of isinglass rock, (*micaceous schistus*), usually of a bright cherry red, but sometimes of a silvery white color. These beds occur throughout a space not less than three-fourths of a mile wide, and ten miles long. I have never read of any mine of Plumbago which can compare in extent with this, and have reason to believe it is the largest mine on record."

Professor SILLIMAN having had a specimen of this plumbago presented to him by the late Judge JOHNSON, of the Supreme Court of the United States, said, "it is of very fine quality, and appears well adapted both for crayons and pots." And Professor DEWEY, of Williams College, Massachusetts, on viewing another specimen, declared, "it was the finest he ever saw."

Italian Spring Wheat—Edward P. Roberts, editor of the Farmer and Gardener, Baltimore, has been appointed agent for the sale of a lot of 140 bbls. of first rate Italian Spring Wheat. It will be sold in lots of one or more barrels, at \$3½ per bushel, each barrel supposed to contain three and a half bushels of wheat. An opportunity is now offered to those who may desire to procure seed, and we hope not a few will embrace it.—*Caroline Advocate*.

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Cast-steel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

jy 4

J. S. EASTMAN.

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to

SANDS & NEILSON,

Office of "Farmer & Gardener,"

jy 25 4t Corner of Charles & Market sts. Baltimore.

A BROOD MARE & TWO COLTS FOR SALE.

The subscriber is authorised to sell a brood MARE with her two foals—the mare is half-sister to Bachelor, her eldest colt now rising one year old is by Messenger, a full blooded horse, the other was dropt the last spring, is by Young Tom, one of the purest of the Tom blood in the country, and is himself one of the fastest trotters and rackers any where to be found. EDW. P. ROBERTS, au 29 4t Baltimore, Md.

MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which will be ready for sale this fall.

August 15.

EDWD. P. ROBERTS, Baltimore, Md.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	—
CATTLE, on the hoof,.....	100lbs	6 50	7 50
CORN, yellow.....	bushel	93	95
White,.....	—	—	102
COTTON, Virginia,.....	pound	11	—
North Carolina,.....	—	—	—
Upland,.....	—	10	12
Louisiana — Alabama	—	—	13½
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	—	—	—
SuperHow. st. from stores	—	8 75	9 00
“ wagon price,.....	—	8 25	—
City Mills, super.....	—	8 00	8 25
“ extra.....	—	8 50	—
Susquehanna,.....	—	9 37	—
Rye,.....	—	5 75	6 00
Kiln-dried Meal, in hhds.	bhd.	24 00	—
do. in bbls.	bbl.	5 25	—
GRASS SEEDS, wholes. red Clover,	bushel.	6 50	7 00
Timothy (herds of the north)	—	3 50	4 00
Orchard,.....	—	2 50	3 00
Tall meadow Oat,.....	—	—	2 75
Herds, or red top,.....	—	75	1 00
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
“ water rotted,.....	—	7	8
HOGS, on the hoof,.....	100lb.	6 75	6 87
Slaughtered,.....	—	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	—	7	—
refuse,.....	—	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	—	3 50	4 00
OATS,.....	—	32	—
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	—	87	1 00
Lady,.....	—	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	3 37	3 50
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	65	70
Susquehanna,.....	—	—	none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
“ brown and red,.....	—	4 00	6 00
“ fine red,.....	—	8 00	10 00
“ wrappery, suitable	—	—	—
for segars,.....	—	10 00	20 00
“ yellow and red,.....	—	8 00	10 00
“ good yellow,.....	—	8 00	12 00
“ fine yellow,.....	—	12 00	16 00
Seconds, as in quality, ..	—	—	—
“ ground leaf,.....	—	—	—
Virginia,.....	—	4 50	9 00
Rappahannock,.....	—	—	—
Kentucky,.....	—	4 00	8 00
WHEAT, white,.....	bushel.	1 75	1 80
Red, best.....	—	1 55	1 60
Maryland inferior	—	1 10	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
“ in hhds.....	—	—	37
“ wagon price,.....	—	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,.....	—	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	—	35	40 18 20
Three fourths Merino,.....	—	30	35 18 20
One half do.....	—	25	30 18 20
Common & one fourth Meri.	—	25	30 18 20
Pulled,.....	—	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	—	13½
Shoulders,.....do.....	—	—	11
Middlings,.....do.....	—	do	do
Assorted, country,.....	—	10	10½
BUTTER, printed, in lbs. & half lbs.	—	20	25
Roll,.....	—	—	—
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	—	25 00	40 00
Dry,.....	—	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	—	—	1 75
EGGS,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,.....	barrel.	6 75	—
No. 2,.....	—	6 50	—
Herrings, salted, No. 1,.....	—	2 75	2 87
Mackerel, No. 1, ———— No. 2	—	9 00	10 00
No. 3,.....	—	4 75	—
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....par	VIRGINIA.
Branch at Baltimore,.....do	—	Farmers Bank of Virgin. 2
Other Branches,.....do	—	Bank of Virginia,.....do
MARYLAND.		Branch at Fredericksburg, do
Banks in Baltimore,.....par	—	Petersburg,.....do
Hagerstown,.....do	—	Norfolk,.....do
Fredrick,.....do	—	Winchester,.....do
Westminster,.....do	—	Lynchburg,.....do
Farmers' Bank of Mary'd, do	—	Danville,.....do
Do. payable at Easton,.... 1	—	Bank of the Valley,.... 2
Salisbury,.... 2 per ct. dis.	—	Branch at Romney,.... 2½
Cumberland,..... 3	—	Do. Charlestown,.... 2
Millington,.....do	—	Do. Leesburg,..... 2
DISTRICT.		Wheeling Banks,.... 4
Washington,.....	—	Ohio Banks, generally 6½
Georgetown, } Banks, ½ p.c.	—	New Jersey Banks gen. 5
Alexandria,.....	—	New York City,..... 1
PENNSYLVANIA.		New York State,.... 3½
Philadelphia,.....½	—	Massachusetts,.....3½
Chambersburg,..... 1	—	Connecticut,.....3½
Gettysburg,.....do	—	New Hampshire,.... 3½
Pittsburg,..... 3½	—	Maine,..... 3½
York,..... 1	—	Rhode Island,.... 3½
Other Pennsylvania Bks. 4	—	North Carolina,.... 6
Delaware [under \$5].... 6	—	South Carolina,.... 8½
Do. [over \$5]..... 2	—	Georgia,.....do
Michigan Banks,.....10	—	New Orleans,..... 15
Canadian do.....10	—	—

CABBAGE SEED, &c.

FOR SUMMER AND FALL SOWING.

Just received, an additional lot of Early York Cabbage Seed of the Scotch short stalk variety, imported from Edinburgh. This cabbage is full as early as the English Early York, larger head, very dwarf, and is decidedly superior to all early cabbage seed for fall sowing. Also, Early dwarf Paris, Early Battersea, Early George, Bullocks-heart, Flat Dutch, Savoy and other Cabbage Seeds. Large Holland Cauliflower, and Kale Seed, of various sorts, among which is the Delaware Kale, the best sort for fall sowing, color dark green, tinged with purple, the leaf tender and curled.

IN STORE,

Corn Salad, Curled Endive, early Curled Cilicia, brown Dutch and large white head Cabbage Lettuce seeds; black and white Spanish and yellow Turnip Radish seed for fall sowing, the latter a superior sort, and will produce well if sown at any season of the year.

Will be in store in a few days, the Pye Plant or Tart Rhubarb seed, producing a very choice vegetable, and should be cultivated in every garden.

ROBT. SINCLAIR, jr. & CO.

Light, near Pratt street wharf.

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AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

DURHAM & AYRSHIRE CATTLE.

The subscriber is authorised to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Magnum-bonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention.

EDWARD P. ROBERTS,

Editor Farmer and Gardener, Baltimore, Md.

sep 12

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INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs.

JOHN T. DURDING & CO.

je 27 4t

Fronting Grant and Ellicott sts.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

WHITE TURKEYS, GEESE AND PIGS.

THE subscriber has for sale a few pair of pure White Turkeys, large Westphalia white Geese, and Barnitz white Pigs, which will be sent to order, cooped and furnished with feed suitable for a voyage, at \$10 a pair for the latter, and \$5 a pair for the two former.

ROBT. SINCLAIR,

[au 7 4t At Clairmont Nursery, near Baltimore.

CONTENTS OF THIS NUMBER.

Crossing wheat; notice to those wanting spring wheat; rise in price of cotton; advice to destroy weeds, &c.; Dutton corn; cheap thrashing machines; sale of Durham cattle; extension of the mulberry and silk culture; fly in turnips; analysis of soils; on the economy of cutting up corn, &c.; ripening of corn and ploughing of green crops for manure; swamp culture; the green crop system; Wilson's mowing machine; taming wild horses; the sick head-ache; plumbago; Italian spring wheat; advertisements; prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEIL, N—EDITED BY E. P. ROBERTS.

No. 22.

BALTIMORE, MD. SEPTEMBER 26, 1837.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, SEPTEMBER 26, 1837.

We are pleased to learn that Dr. Joseph Muse, of Dorchester county, has several acres in the culture of the sugar beet, and that it is his intention to manufacture them into sugar. In such hands success is certain, and we think we may safely conclude that our eastern peninsula will be indebted to the enterprise of Dr. M. for introducing amongst its farmers a most lucrative branch of rural economy. Suppose that each farmer only made his own sugar and molasses, what comfort and saving it would be to his family and purse.

A Cure for the scouring in calves—Take a table spoonful of finely powdered chalk and a like quantity of ground ginger, put it in a bowl, pour boiling new milk on it, say half a pint, stir it well and then give this dose about milk-warm, night and morning, to the calf, and in nine cases out of ten two doses will be sufficient to stop the disease.

Raising of Calves—The best method of raising calves we think is to do so by hand. If taken from the cow as soon as dropped, there will be no difficulty in teaching it to eat. Loblolly made of half a pint of corn meal and a pint of new milk given to it about thrice a day will be sufficient to keep it. It is the easiest thing imaginable to teach the calf to suck up its food; by simply pressing down its head into the pan containing the mixture with one hand, and inserting the fore finger of the other into its mouth, it will instinctively suck up its beverage. If it be desirable to husband your milk, you may begin to decrease the quantity which you add to your loblolly when the calf is about three weeks old, putting in less milk each day until the calf imperceptibly forgets its taste altogether. When the calf is six weeks old you may turn him out in a grass lot; but if you desire to push its growth, continue its loblolly twice a day; by doing so you will increase its size fully one-third.

BLUE GRASS AND MEADOWS.

The following article we copy from the Washington Republican, published at Jonesborough, Tennessee. It contains much valuable information upon subjects of vast importance in husbandry. It will, perhaps, appear strange to many of our readers that *Blue grass* is in such high esteem in Kentucky; but their surprise will cease when they learn, that the graziers in that state consider it the very best *grazing grass*, and second only to *timothy* for hay.

I thank my worthy correspondent for the compliment he is pleased to pass upon my numbers, as well as for the evidence he gives, that I have correctly understood and stated the management of the best graziers of Kentucky.—But I beg leave here to say, that he *can add*, and I hope he will add much to my numbers, or to the columns of the Farmer which will be valuable to every one interested in the culture of the soil. Grazing has long been his study, and he has scrutinized and practiced remarkably well. Even in the letter just quoted, where he describes what would be a ruinous practice for the grazier to follow, he has so completely delineated what has always been our practice, that nothing could be better calculated to convince us, that we have *always failed* because we have *always done wrong* in the making of pastures, and at the same time he gives every reason to hope success, for a better system of management. I have therefore extracted the greater part of it, as a valuable communication to the readers of the Farmer. And let me here remark, that other gentlemen have given me the same history of the origin and progress of the grazing system in Kentucky. Men have told me, that they believed the two Cunninghams, (Isaac and Robert,) quite foolish or deranged in their first outset, and that after the success of these two men, they then joined in the common sentiment, that blue-grass would grow nowhere in Kentucky except on Strodes creek: but now these very men hold and practice largely upon the third system, that is, that blue-grass will grow finely in many portions of Kentucky, Tennessee and other States which have not yet been tried. Mr. Harland and Major Rush of Sumner county in this State were extensive graziers in Kentucky, upon lands which they themselves had once supposed unfit for grass; and now they have sold their proven farm and emigrated to this State with several other highly respectable and extensive graziers, to risk their fortunes upon the grazing qualities of our soil. The latter gentleman particularly, as well as Maj. Miller, told me that they were certain that ours is a fine stock country, and all the emigrants from Kentucky to Sumner county, as far as I could learn their sentiments, are highly

pleased with their prospect in the grazing business.

But Blue-grass must stand aside a little, till I say something of the best system of managing Meadows, and give some additional evidence to the foregoing letter, that our country is well calculated for meadows, if rightly managed. I shall aim to condense my own experience, and what I have derived from others, in as few words as possible. To set a timothy meadow, you have four important points to keep in mind.

1st. You should sow early enough in the fall, to give your grass time to get a root sufficient to prevent the winter freezes from throwing the grass out of the ground; or then, if you sow in the spring, your sowing should be early enough to give roots to the grass, that will enable it to withstand the dry season of the summer.

2d. Your ground should be clean enough upon the surface, to enable the seed to get to it.

3d. Your soil should be sufficiently compact, to enable the tender roots to support the young plants, and to aid in preserving them from the freezes of winter, and the droughts of summer.

4th. Always sow seed enough, to insure a dense stand all over the ground, that will take possession of it at once, and keep down every other growth.

The surface may be made in good order, where you wish to sow in the fall, upon woodland, by burning all leaves and trash off. But if you wish to sow old land, or any cleared ground, it should be ploughed well, and harrowed, or brushed till it is completely level, and fine. Your ground thus prepared is ready for sowing. Put one and a half gallons of timothy seed to the acre. Your Woodland Meadow will need nothing to be done to it after sowing; but that sowed on ploughed ground, should be harrowed or brushed in, and then rolled; or which would answer the same purpose, the brush should be dragged over it several times, so as to press the surface well. The fall sowing in this country, should be about the 20th of August, or the 1st of September, and the spring sowing, should be in January or February. Your spring sowing, should be on naked, compact ground; and if you have to plough in order to cleanse the ground, you should do the ploughing and harrowing in the fall, and let the ground lie till January, or the time you are to sow—then scatter your seed upon the naked surface, and do no more to it. The quantity of seed to be sown at this season, may be varied from one gallon and a quarter to two gallons per acre, always sowing most abundantly where your land is most liable to grow up in weeds.

If your purpose be to sow in the fall, upon ground which is covered with Nimble-will, you need do nothing to the ground at all; but sow, among the grass about the 20th of August, from one and a half to two gallons per acre. To make Herds-grass Meadow; prepare and sow Timothy as before named, and then sow just as much

Herds-grass as if no Timothy were upon the ground, say from one and a half to two and a half gallons to the acre. Thus when you put on the ground a full quantity of both kinds of seed, your Timothy will come immediately, and serve as a Meadow, till the 2nd or 3rd year, when the Herds-grass will begin to crowd it out, and in the mean time, all weeds will be kept down by the Timothy.

Any rich lime-stone land, will do well for Timothy or Herds-grass, whether upon a mountain or in a valley. It is true, that Herds-grass is preferable to any other kind, where you wish to make meadow in a swamp or marsh; because it will grow well there, and convert mire into firm ground. But if you have no swamp, you need not despair of having a meadow for that reason. Because, in this country, herds-grass will grow nearly or quite as well, and timothy even better upon rich upland, than in a swamp. I know this sentiment will contradict the opinions of most farmers in this country; for it is a common prejudice, that meadows will not prosper, unless they are in swamp. But my observation goes to prove that both timothy and herds-grass will prosper finely upon our rich hill sides, and that hence every man may have a meadow.

For the preservation of Meadows; after they are once well set, feed your cattle upon them, every winter, in November and December, with timothy or herds-grass hay, shucks, straw, or any thing you give your cattle. Do not fail to do this even for one winter, and be sure to have no stock on your meadow in the spring; and you cannot fail to have good crops of hay.

From the extract of the letter, which I have quoted, the reader may readily see, that our meadows have run out here and grown up in weeds and briars, because we have either not grazed them at all, and ruined them in that way, by leaving the sod lifted up, and detached by the frost, to die in the summer; or then we have grazed them without system, till an extermination of the grass has been the consequence. The common practice here, which we have called "taking care" of meadows, is just what would ruin them in any part of the world. From what I have learned, of the reasoning and practice, in the hay-making districts of Great Britain, and of all parts of the United States, where meadows are profitable, the very practice which has always prevailed here, in the management of meadows, is just what would cause the ruin of meadows in all those countries. And I am well warranted in the belief, that our usual practice or culture, would result in the ruin of meadows in any part of the world. Why then, should any one decide, that nature has not adapted this country to meadows, when his opinion is predicated upon just such experiments, as every one acquainted with the subject would expect to result in a failure. Let us learn to manage as others do, who succeed well; and then, if we fail, let us still study our soil better, and try other modes before we give up the important matter. But I must give some cases in proof, that meadows will prosper here. Wm. Hardin, deceased, of Davidson county, sowed a timothy meadow, about 12 or 13 years ago. He grazed in the winter, and none in the summer. A respectable gentleman informed me that he had

as many as fifty mules upon that meadow at a time. Guessing at the amount, I suppose the meadow contains not more than ten or twelve acres. I am informed that Mr. Hardin once sold hay from it, to the amount of \$1100 in one season. I saw it in May last, and it was as fine as when I first saw it about seven years ago.

Mr. Daniel Safferans, of Gallatin, has four acres of timothy meadow, about 12 years old, from which he sold the present year's crop, delivered on the spot, to Mr. Lewis, for \$275.

John Gordon, of this county, has a herds-grass meadow about six years old, which he supposes to yield between four and five tons to the acre; and says that he would not rent it for \$30 per acre.

The following statement was written to me by Rev. John W. Bowen, Smith county, Ten. Aug. 2d, 1837.

John McMinn, Esq. 5 miles south of Statesville, Wilson county, has a Timothy Meadow, which he sowed in 1800, and has mowed every season since. It contains about three and a half acres. It has made hay enough to feed all his stock for twenty-eight years, which never consisted of less than five horses and fifteen cattle, and sometimes he had double that number of each. Squire McMinn has always grazed it in August and September with his stock; and during the winter and spring, until the first of April, his sheep (generally about 15,) have always grazed constantly. He assured the writer, last April, that he would not now take \$60 rent for his little meadow.

Respectfully, J. W. BOWEN."

Mr. Henry L. Moores, who saw this Meadow, in company with Mr. Bowen, conveyed his idea of it to me, by saying: "when I saw it, I was at once reminded of the best meadows of Kentucky."

Esq. Sewell of Wilson County, has a herdsgrass meadow, which yielded over four tons to the acre in 1836..

These specimens are equal to the meadows of Great Britain, which has been recently sending hay to the U. States for sale. In fact, Professor Law, of Edinburg, supposes their meadows to average less than two tons per acre. But I must stop to give room for a letter from Mr. Hughs of Kentucky.

"Fayette County, Ky., June 19, 1837.

Dear Sir—I received, a few days since, from Wm. P. Hume, Esq. of Bourbon County, a note requesting me to inform you of the number of acres of land in my farm; what quantity I have in pasture; how many hands I work; and what have been my annual profits for the last two years. My farm contains between 18 and 1900 acres. I cultivate about 200 in corn, about 20 in meadow, about 100 in wheat and rye; and the balance is in pasture. I work 10 hands. My farm is what we call here a grazing farm. I buy, graze, and feed about 300 cattle annually; raise and sell about 200 hogs. My profits on cattle, hogs and other articles sold off my farm in 1835, were \$9,945 00; in 1836, \$10,475 00.

I would take pleasure in communicating to you at any time, any information I am in possession of on this subject.

Yours respectfully,

JACOB HUGHS."

Francis H. Gordon.

Circumstances prevented me from seeing Mr. Hughs, last fall, as I was recommended to do; but I was informed that he is a good farmer, and the above letter confirms the information.

FRANCIS H. GORDON.

FRUIT AND FRUIT TREES.

We are indebted to a pamphlet published by Messrs. Jackson & Scram, of Poughkeepsie, New York, for the following "concise treatise on the growing and propagating of Fruit Trees, Shrubs and Vines," and commend it to the favorable notice of our readers, as containing much excellent information in a form to render it highly acceptable, being founded on the theories of approved authors, tested by several years practice, and improved by practical experiments.

INTRODUCTORY REMARKS.

Most fruit is in a great degree nutritious; the best kinds are a pleasing luxury, and the greater part, when ripe and in a perfect state, used with moderation, are not only inoffensive, but beneficial to health.

The art of growing and propagating fruit trees and good fruit, will be found to be plain, simple, and easy when rightly understood, and in no wise difficult to attain; but it has not received the attention it deserves, and consequently fruit trees consist, in a great measure, of casual growth, or such as are the result of careless, unskilful management, and are either stunted, or diseased, or both, and bear fruit which is unsound or inferior in quality, and the wood is of little value for timber or fire-wood.

Trees, when stunted from the seed, or afterwards, can rarely be restored to that vigour of growth which they have lost; and when kept too long in nurseries in a crowded state, which prevents their growing, they become too old to transplant, and either die in the operation, or continue dwarfs ever after.

Trees are frequently grafted and budded, not only when stunted or diseased, but when too large and old, and a great number of grafts stuck all over the trees without regard to being placed in the leading and best placed limbs. The grafts may safely, as is the practice, be warranted, as they will live; but the natural stock will continue to form the bulk of the top and bearing branches, and the grafts will remain diminutive and bear fruit in proportion. 25 grafts well placed are better than 100 placed at random:—10 grafts judiciously placed in a tree of moderate size, will change the whole top in a few years, where 200 grafts scattered all over a large tree, will not materially change its top or its fruit.

No person can, therefore, expect to reap any advantage from grafting, unless on small and middle sized trees, and such as are sound and vigorous: all others should be cut down as cumberers of the ground.

Pruning and training are much neglected, or very unskilfully done, making trees of uncouth shape and condition; trees, when hollow, are in a rapid state of decline; they will soon rot down. They are made so, in most cases, by pruning off limbs and branches, leaving stumps on the trees; these rot off, leaving a hole in the tree, which ad-

mits water, and soon rots and renders it hollow. Hagglng off limbs with an axe has the same tendency. Pruning should always be done by cutting or sawing off limbs or branches *smooth* and *even* with the trunk or main branch from which it is taken. The wound will then soon heal over and be covered with bark, which is prevented by stumps or snags being left, as the bark cannot grow over dry snags.

Success in growing and propagating fruit trees depends, like every other branch of business, on practical skill *how to do it*, and industry and perseverance in the performance. When you plant an orchard, or single tree, plant sound, vigorous young trees, and no other than those you *know* to be such, either by having raised them yourself, or, if procured from a nursery, on such person's representations and assurances as you can safely rely. If you are the owner of trees bearing common or inferior fruit, save, in general, none but the sound, small and middle sized, which graft with the best kinds of fruit. Regulate all by pruning so as to form full, neat tops, suitably open to light and air; keep the earth around, and as far as the roots extend, mellow and suitably rich; secure them well by staking or boxing; water them a little in droughts, until they have taken root.

Having thus given a general view or outline of the subject, I shall now proceed in detail to describe the method of producing sound, hardy, durable trees, and good healthy fruit, and of making the business successful, agreeable and profitable.

On the growth and propagation of Fruit Trees, Shrubs and Vines.

These may be propagated, 1. *By grafting*; 2. *By budding or inoculation*; 3. *By cuttings and layers*; and 4. *From seed*.

SEASON FOR EACH.

Grafting must be done in the spring, and may be performed as early as the middle of March, and as late as the first of June.

Budding may also be performed in the spring after the bark peels freely, with buds of the previous season's growth, or in summer and autumn after the buds of the same season have attained their growth, which is preferable.

Trees, cuttings and layers must be planted in the fall after frosts and before the ground is frozen, or in the spring after the frost is out and before vegetation has advanced much, which is also a proper time for pruning.

Seed should be planted so late in the fall as not to vegetate but little, if any, or so early in the spring as to have the advantage of the whole season to grow and ripen in, to withstand the winter frosts.

GRAFTING AND BUDDING IN GENERAL.

Grafting may be performed on most kinds of trees on large or small stocks. Different methods of grafting should be used according to the size of the stock. It may be done in any manner by which the scions and stocks can be united. Those methods most in use will be noticed. Budding will only succeed on small stocks of *vigorous growth*, from the size of a yearling shoot to half an inch, and not exceeding about three-fourths of an inch in diameter.

The apple and pear succeed well either by grafting or budding.

The peach, apricot and nectarine seldom fail when budded, but rarely succeed by grafting.

The plum and cherry take without difficulty by whip grafting, which is the best method to propagate them; they may also be propagated with tolerable success by budding (the plum more readily than the cherry) and likewise by cleft grafting, when you succeed in splitting the stick without splintering the wood or injuring the bark, which can seldom be done.

Grafting and budding, for the most part, can only be practised with success on stocks of the same kind with the bud or scion. That is to say, the apple on apple stocks, pear on the pear, the cherry on the cherry, &c. Peaches, apricots and nectarines may be propagated on each other, and together on the same tree. *The apricot succeeds well on the plum*, and is more durable than on the stock of its own kind, or on the peach or nectarine, but not of so quick growth. The peach and nectarine may also be propagated on the plum, but will outgrow the stock, unless a plum stock be used growing equally or nearly as fast. Trees of the common small black, and red cherry, make excellent and perhaps the most durable stock for cherries of all kinds. The quince and the pear may be grafted on a thorn stock, &c.

GRAFTING.

Scions for grafts may be cut at any time in winter, and even late in the fall. The *proper time* is in February or March, before or at the time the buds, in this respect, and like kernels of grain, if disturbed when they swell and sprout, they become of slender and sickly growth, and rarely recover their natural vigor. Cut for grafts shoots of the last spring's growth, with a little of the two years old wood. Take your grafts from fruitful trees, bearing good fruit of the kind: that is, if from a pippin tree, let it be from such as bear the best of pippins. The best grafts are those about the size of a pipe stem, taken from bearing branches, and not of side shoots or suckers, nor of the rank growth of the top of trees; these are apt to continue their rank growth, and outgrow the stock, and are not so soon in bearing, nor so fruitful; if too slender they will not be thrifty, nor take well—tie up the grafts of each kind by themselves, with some distinguishing mark; put them in a cellar or out-house, to keep them from being saturated, dried up, or frost-bitten; set in a box of earth one-third their length, the earth kept moderately moist by occasional sprinkling, to keep them plump and prevent their shrivelling, but not so wet as to cause them to sprout.

Scions may be used for grafting, fresh gathered, at any time during the season of grafting before the buds open to leaf; early gathered grafts will, however, take more readily.

Take 8 ounces of *pure transparent rosin*, free from sediment, about 2 or 3 ounces of bees-wax, and lard of half the size of a hen's egg, melt them over coals or a slow fire, stirring the composition with a stick; after thoroughly mixed and melted, empty it into a pail of cold water, rub some lard over your hands to prevent its sticking to them, and work it together thoroughly, as shoemakers do their wax. If the composition is too hard and does not work freely when making or while using it in grafting, rub over it more lard and work it in as before; if too soft add rosin, and so on until it becomes suitable for use.

CLEFT GRAFTING.

Cut down all diseased and stunted trees, and graft those only which are healthy and thrifty, of not exceeding 6 or 8 inches in diameter, in some of the leading, best placed and thriftiest branches on the tree, with a view to changing the whole top. Trees of a large size may be grafted, and partially, and in some cases wholly changed, but not generally, without a great deal of labor and attention. Saw off the branches for stocks to graft on, at smooth places where they split well, and are in diameter of from one to two inches, prune the tree sufficiently to give room and air to the grafts, and gradually to force the juices of the whole tree into the grafts. Continue pruning each tree yearly, at any leisure time in the winter or spring, giving sun and air, and making room for the grafts as they grow, in such manner that if the grafts are of vigorous growth, in the third season to have cut out all except the grafts, and formed a new top. When limbs are taken off in pruning, it should be done with a saw or chisel, not an axe, and if large limbs, a coat of tar, paint or the composition mentioned, put over the wound.

Having the stocks prepared as above, and being furnished with grafts and the composition, with a case knife or other convenient instrument and hammer, split the stock in the middle, drive in a wedge of hard wood of iron of 6 or 8 inches in length, and open the split so as to admit the graft freely, prepare the grafts, either all for the same tree, or one by one as used, by paring off about an inch and a quarter of the end of the graft or scion to the shape of a wedge, leave that side of the graft which is to be put towards the centre of the stock of *equal* thickness with that part which is to be towards the outside of the stock, with a view that the pressure of the stock, when closing upon the graft, be on the *inside* and not on the outside of the graft, where it is intended to unite with the stock: the outside if a little open, will facilitate the communication of the sap from the stock to the graft; but if closed up tight, may prevent such communication and endanger the graft; insert the graft as far as cut in wedge form, matching the *wood* of graft and wood of the stock without regard to the outside or surface of the bark on either: take out the wedge with sufficient care not to disturb or displace the graft. To stocks a little over an inch in diameter, one graft is sufficient, if larger, two are necessary, leaving on every graft from two to four buds. Finish the work by covering the crown of the stocks and the splits on each side, whether containing a graft or not, with the composition about the thickness of wrapping paper, by drawing it into strings over them, and smoothing it down lightly with your finger or thumb, covering the whole perfectly tight, to exclude air and rain, and more especially to prevent the sap from running out. The sap being confined, will force its way to the graft, which will readily receive it.

Stocks with only one graft will be improved by having the corner opposite the graft pared down to about the middle of the graft. It will enable them to heal over sooner, without leaving defects.

If the stock split uneven, cut it a little to fit the graft. If the bark splits from one side of the stock and adheres to the other, cut it down even with the wood, and match the graft to that side only, in case the other is too badly injured.

The grafts should be examined occasionally, and the shoots from the stocks ought not to be suffered to acquire a luxuriant growth, but *gradually* thinned out and cut away as the graft acquires growth and strength to take the juices of the stock.

Let the limbs or stock for grafting be cut off, when convenient, above and near small branches or shoots, to be left at first to draw the sap.

If the above directions are substantially adhered to, few grafts will fail; and a middle sized tree of vigorous growth, may have the top changed, and in a fruit bearing state, in about three years.

WHIP GRAFTING.

This method is particularly calculated for nurseries, and is most expeditious and advantageous on all kinds of young trees, (except the peach, apricot and nectarine, on which budding may be considered, *at all times*, preferable) and is peculiarly adapted to the cherry and plum, and all such as do not split well. It may be performed near the ground, or at the height of five or six feet, near where you intend to form the top, or in limbs from the thickness of a pipe-stem to about three-fourths of an inch, and too small to cleft graft; and the top of young trees having such limbs, may have their top changed by this method, as large trees by cleft grafting; and if the tree have some large limbs to cleft graft, but not many, it may be partly cleft and partly whip grafted. The manner is this: provide yourself with the composition before mentioned, soft woollen yarn, and a sharp pen-knife; begin the work by cutting off the head of the stock, at some smooth part, by one clean slanting cut upwards, so as to form a slope on one side about an inch and a half or two inches in length, and make a small slit from near the middle downwards, to receive the tongue of the scion; then prepare the scion, by cutting it with three or four buds, preferring the lower or thick part, and cutting the lower end on one side also in a sloping manner, the length of and to fit the slope of the stock, as if cut from the same place, that the rinds of both may join, as nearly as possible, in every part; then make a slit upwards in the slope of the scion, so as to form a sort of tongue, to fit that made in the slope of the stock, which insert therein, so that the rinds of both may join together, or on one side, if the stock is larger than the graft; then bind the parts together with the woollen yarn, bringing it round the stock and graft moderately tight, and fastened accordingly; make a plaster of the composition between your fingers and thumbs, and wrap it round the stock and graft over the ligature, squeeze it in your hand, so as to make it snug and tight, to keep the sap and exclude the rain and air, particularly at the ends. When the buds on the grafts have grown four or five inches, which will be about the middle of June or earlier or later, according to the season, the ligature becomes too tight, and will endanger the grafts;—place the point of a knife on the upper side of the bandage or plaster, press it down through the composition and threads so as to cut them all in two, and take off the bandage and plaster entire. If the stock is large, and the graft is matched and united only on one side, leaving the other side exposed, put the plaster taken off, or a little composition, over the exposed part.

ROOT GRAFTING.

This is done by whip grafting upon young seedling trees of the size of a quarter to an eighth of an inch, taken up, whip grafted at the root, and re-planted, and is practiced in nurseries for want of better stocks. It may also be done upon pieces of roots to about 3-4 of an inch in diameter and less, either by letting the roots remain or separating, and after grafting, replanting them. No composition is required; the yarn by which the graft roots are tied together will rot off and make room for growth. Larger roots may be cleft grafted, and then the composition is to be used.

CROWN GRAFTING,

May be practiced upon such stocks as have become too large and stubborn to cleave, and then two, four, or more grafts inserted round the crown of the stock in a circular order, introduced between the bark and wood; this cannot be done until the bark peels freely—the grafts are subject to be blown off. The stock will be a long time in healing over, and is subject to decay.

SIDE GRAFTING,

This is done by inserting the grafts into the sides of the branches without heading them down. To fill up any vacancy on trees thus: prepare the scion as for whip grafting, by sloping and tonguing it; then cut a chip from the place where the graft is to be inserted, of the same size with the slope on the graft, in such manner that the wood on the slope of the graft will cover and fit the wood laid bare by taking out the chip; cut a notch or tongue on the stock to fit that on the graft, and match them firmly together; cover the parts matched with composition when necessary, first binding them together as in whip grafting. Nothing further is necessary, except pruning, as directed in cleft grafting.

BUDDING OR INOCULATING.

Budding should be performed on stocks of thrifty, vigorous growth. Trees may be raised by budding young trees about half an inch in diameter, near the ground. Buds inserted in this manner, will grow 5 and 6 feet and upwards in one season, and will form straight and smooth stems and finest trees. Budding may also be performed in the branches of young trees in the top, and leading, and side shoots; but if in the season of grafting, and you have plenty of scions, the latter is preferable. Roses, Lilacs, &c. &c. may be budded at any time after they are full grown, and as many kinds as there are of either, may be put on the same stock together, and form a pleasing variety.

TIME AND SEASON FOR BUDDING.

The seasons proper for budding are two. 1st, the spring, beginning after the sap flows and the bark peels freely, until the first of June, with buds cut from scions preserved as for grafting, and before used buried or immersed in water, or fresh from the tree; or 2d, (and which is the proper season) in the summer and fall, with fair, fullgrown buds, of the same season, taken from the well ripened shoots, fresh from the tree, or kept with care only for a short time; otherwise it will be labor lost. In the summer or fall it should not be done so early as to cause the bud to shoot the same season; the short time they will have to

grow before cold weather, will not admit of their becoming ripened and prepared to withstand the winter frosts. On the other hand, it should not be put off too late, but be performed while the sap flows and the bark peels freely, and before the trees or shoots become bark bound, which time varies in the different kinds of trees, and is a little sooner or later according to the season, whether it be wet or dry, but generally as follows: the cherry, plum, and pear tree become bark-bound, by the 1st of August, and should, together with the apricot, if worked on plum stocks, be inoculated the second or third week in July. The apple trees become bark-bound about the 1st of September, and should be budded in August. The peach, apricot, and nectarine about the 20th of September, and should be budded between the 1st and middle of that month. It may, however, be done later, and if occasion require, after the bark begins to fasten, by rubbing it with a smooth knife handle or other substance, and thereby loosening it, but this is not safe. The shoots intended to be taken, are to be selected in the same manner as for grafting, and should be as fresh from the tree as circumstances will admit, and kept in the shade and moist, not saturated, and the work performed in cloudy weather, in the shade or in the morning or evening.

MANNER OF BUDDING AND HEADING THE STOCKS.

This may be done by making incisions in the stock like a cross † or a T, then raising the corners and inserting the bud; but the following is the most simple, easy, and successful method: having provided suitable shoots from which to take the buds, cut off the leaves a little above the buds; furnish yourself with some soft woollen yarn and a sharp penknife; fix upon a smooth part of the side of the stock; make a horizontal cut across the bark to the wood; then from this cut make 2 slits downwards, parallel to and apart from each other, the width of the bud with its bark, when severed from the shoot; then with the point of your knife raise the bark next the horizontal cut between the slits, and peel it down their whole length, clear from the wood; make a slit in the bark peeled down. Next prepare the bud; place your knife about half an inch above the bud, and cut down through the bark into the surface of the wood, and so along under the bud, and cut about half an inch below it, taking out as little of the wood as may be; then turn down the loosened bark, insert the bud over the wood so as to cover it; then close the bark over it, leaving the bud to project up through the middle slit; break off about 20 inches of the yarn, and place the middle over the bark, and just below the bud, binding it round the stock to the back side of it, then cross it and wind the thread around the stock over the bark, above and below the bud, not over it, until it is all closed up, so tight as to prevent the sap from communicating; then tie a knot and the work is completed.

If it be spring, and the buds taken from scions preserved as for grafting, insert the bud with the wood; in summer or fall the wood may be separated from the bud. But if on separating the wood there appears a small hole on the under side, opposite the bud, the bud will not sprout and is rendered useless. It is therefore generally best

to insert the bud with a little wood. It is considered preferable to insert the buds on single stems and upright branches on the north or shady side of the stocks, and on lateral branches; insert them on the upper side to shed water and make a perfect growth. In about three weeks the bandage must be taken off by cutting across the yarn, on the side of the stock opposite the bud. When the buds begin to shoot, the stock must be headed down, in spring budding, at or shortly after the time the bandages are taken off; for autumn budding, not until the next spring. This is performed by cutting off the stock about four inches above the bud, sloping upwards from the side opposite the bud. After the bud has grown five or six inches, tie a string around the stock a little above the shoot, and bring the ends to the outside and there tie them together, so as to keep the shoot in a perpendicular position, and brace it against the wind, which may otherwise blow it off. The shoots which put out from the stock should be cut or rubbed off occasionally.

After one season's growth of the bud, the stump left above the bud should be cut down close to the shoot and sloping from it, and a little composition put over it.

SEED.

Select proper seed from healthy trees, sound, ripe and fair fruit. Let the seed be put into sand as they are collected, and put into a cellar, or other cool, damp place, until the proper time to plant them. If the seeds are kept in a warm and dry place, they seldom vegetate after it, and when they do, are generally of a sickly growth, and seldom make large and vigorous trees.

THE SEED BED.

The seed bed should be planted in the fall, before the ground is froze, or as early in the spring as the ground is in a state to be ploughed or spaded. Having selected your seed, prepare the ground to receive it; this should be of good soil, not subject to standing water. Let it be spaded sometime previous to planting. Plant the seed in rows, fifteen to eighteen inches apart, from one to two inches deep, according to the size of the seed and lightness of the soil. Apples, pears, and the like, eight or ten, and stone fruit, three or four in a foot, in the rows. Cover them up, and press the ground moderately over them.

Stone fruit should be cracked a little if planted in the spring, which need not be done if planted in the fall. During the ensuing season, and every succeeding season, until the trees are removed, hoe out the weeds, loosen the ground, and thin out the seedling plants, (leaving only the most vigorous) to from eight to ten inches apart. Water them occasionally in a drought.

THE NURSERY.

After one season's growth, either early in October, or immediately after the frost is out in the spring, trees that have grown about a quarter of an inch in diameter and formed perfect roots may be taken up and placed in nursery rows. Apple and other trees of slow growth which have not attained that size, nor perfected their roots, should remain another season. The nursery into which the young trees are now to be transplanted, should be in good soil, open to the sun and air. After being ploughed or spaded, and levelled by raking or

harrowing, dig trenches lengthwise, from $2\frac{1}{2}$ to 8 feet apart; then take up the trees from the bed, prune the roots and top with care, thinning out the branches and roots, cutting off the perpendicular or tap roots, and all irregular roots and branches, leaving only such roots as are in or near a horizontal position. Every tree that does not contain a sufficient number of well placed roots should be thrown away. Open trenches six or eight inches deep, and wide enough to admit the roots freely. Dip the roots in water, which will make the earth adhere to them, and place the trees in the trenches from a foot to eighteen inches apart; draw the ground upon the roots, raise the tree a little so that the ends of the roots incline a little downwards; then gradually fill up the trench, at the same time pressing and packing the ground moderately around the roots. In dry weather, water the trees twice or three times a week, with rain water, or water warmed in the sun, about a pint to each tree, until they have thoroughly taken root. Plough between the rows and prune them every spring, keeping them clear of weeds during the season. Trees planted from the seed bed which have not been root grafted, will be fit to bud in the budding season of the summer and fall following, or to be whip grafted in the following spring. Those who prefer root grafting are referred to the article on root grafting.

Peach trees and the like, will be fit for transplanting in two or three years, and apples, plums, &c. in from three to five years. They will then have attained about six feet in height, and a proportional thickness, and will make large, healthy, fruitful, and durable trees.

LAYERS AND CUTTINGS.

Many kinds of shrubs and vines may be propagated by cuttings or slips, and most, if not all sorts, may be propagated by layers, and in either case the work is to be done early in the fall, shortly after the leaves are shed, or in the spring, as soon as the ground will admit of it.

CUTTINGS.

Cuttings should be taken from the shoots of the preceding year's growth, from bearing stocks, of sound and perfect growth, close jointed, and neither rank and pithy, nor small and imperfect, and planted six or eight inches deep. Slips from shrubs, such as gooseberries and currants, may be from twelve to eighteen inches long; and for the grape, woodbine, and other vines, from sixteen to twenty inches long. Plant shrub cuttings in an upright or perpendicular position. On the other hand, the grape and other vines must be planted sloping, and nearly horizontal, with the ends turned up in such a manner as to raise two or three buds on the cutting above the surface of the ground where planted. Before planting, the ground should be loosened for some distance round and the weeds kept down afterwards. Cuttings may be placed in a nursery a foot apart every way, and transplanted after one or two season's growth, or planted at first where they are to remain. Grape cuttings should be taken when pruning vines in the fall, buried during winter, and planted in the spring.

LAYERS.

All sorts of shrubs and vines which admit of being propagated by cuttings, will succeed equal-

ly as well and some better, by layers, and many kinds may be propagated by layers which cannot by cuttings. Layers may be prepared in various ways. My object is to point out only the most plain and simple method, best adapted to common use, and for all ordinary purposes. Take for layers such young suckers or shoots as can be bent down to the ground without separation from the shoot or main stock; dig up and mix the earth alongside the shrub or tree from which the layer is to be selected; make a hole from four to six inches deep; prepare a peg or stick from six to eight inches long, sharp at one end and a hook at the other; cut out from the shoot intended for a layer the buds as directed for cuttings; when it is intended to raise a single stem, bring down the shoot and fasten it with the peg in the hole about twelve or fifteen inches from the end, then cover it over; raise the end of the layer so as to stand perpendicular from the ground, and press the earth around it. In one year the layer will have formed a root of its own, and may be separated from the main stock, the roots and branches pruned, and then planted permanently.

GOOSEBERRIES AND CURRANTS.

Currants and gooseberries, and particularly the first, are usually suffered to grow in bunches composed of side shoots and suckers, which absorb all the moisture and substance of the earth, so that no herb or vegetable will thrive within a space of five or six feet from them; they increase until they choke each other, and become a heap of rubbish; the fruit is small, insipid, and unhealthy.—They can, with a little attention, be raised with a single stem, the fruit then grows more abundant, larger, and better flavored, which is effected by merely cutting out every bud, with a chip of the wood from all that part of the cutting which, when planted, will be at or below the surface of the ground.

PLANTING AN ORCHARD.

In planting trees in an orchard or garden, where they are to remain, the same rules should be observed as in transplanting them from the seed bed to the nursery, in pruning, planting, watering, and previously mellowing the soil; they should be planted early in October, or as soon as possible in the spring, and the earth, unless it is ploughed, should be spaded four or five feet in diameter for a tree. They should be well secured with firm stakes, and tied up with whisks of straw or loose bandages of any kind, to secure them from being shook or loosened in the ground. The trees should be planted a sufficient distance apart so as to admit the sun and a free circulation of air when full grown: apple and pear trees at least forty feet, cherry and plumb 30 feet, peach, apricot and nectarine, 25 feet. Tilling by raising a succession of crops of grain and suitable manuring, particularly around the trees, and as far as the roots extend, will promote a vigorous and rapid growth; in a few years they will attain considerable size and bear fruit in proportion.

SOIL AND SITUATION.

Low, wet or marshy ground is not suitable; it should be upland, or so much so as not to be exposed to standing water; should be open to sun and air, and tolerably rich.

That soil and situation which will bear goo

crops of winter grain, are well calculated for the cultivation of fruit trees, shrubs or vines. Occasional ploughing, digging, or in other way mixing or mellowing the ground, keeping down underbrush and weeds, and manuring are beneficial, and will at all times add to the health, vigor and fruitfulness of trees and vines.

TRAINING AND PRUNING.

Trees, when young, both forest and fruit, may be trained to any shape, from that of a lofty towering top, by pruning away the large limbs, except the leading, upright one, to that of a low spreading top, by cutting off the leading, upright limbs. Pear and cherry trees do well with a high top; other kinds make the best bearers with round tops; and no tree, except it be intended as a wall or espalier, should be suffered to form a top less than 5 or 6 feet from the ground: to this end, all limbs and branches, should, to that height, be gradually cut away.

Pruning should not be neglected, in divesting trees of suckers from the root, or side shoots, when they are not necessary to fill a vacancy; and generally, in promoting a free circulation of air, and in preventing limbs and branches or vines from intersecting or crowding each other, a medium should be observed, as pruning *too much* is injurious. The superabundance of sap will cause side shoots, suckers, and eventually decay. The limb or branch intended to be removed should be cut away clear and smooth, without leaving stumps or snags, and even with the trunk or main limb from which they are taken. Large wounds, or those of a moderate size, exposed to wet, should be covered over with tar, paint, or composition. If this is neglected, or stumps or snags of the branches cut away are suffered to remain, the stump or exposed part will rot in the tree, render it hollow, and in a few years destroy it. Many orchards have rotted, and are now rotting down from this cause.

DISEASES.

To prevent or cure diseases in vegetation, as well as animal life, the best antidotes and principal remedies are to *remove the causes which produce them*. To this end destroy caterpillars, all noxious worms and insects, prune off all unsound and affected parts. If this cannot be done without destroying its usefulness, cut it down and replace it with a young, healthy, vigorous tree.—Swine, rooting under trees, and birds frequenting the tops, building nests, unmolested, will, in a great measure, if not wholly, destroy insects and vermin.

When a tree is bark bound, covered with rough bark and moss, these must be scraped off; and being washed with soap suds, or covered with a coat of lime wash, will be beneficial; prune the tree, removing side shoots and suckers from the root, and stir and manure the ground, for the most part, at least as far as the principal roots extend. The soil being sod-bound, or barren, or covered with underbrush, or all together, are the causes of the difficulty; these being remedied, the tree will again thrive.

It is a mistaken opinion, that the diseases which destroy peach trees, &c., caused by grubs, can neither be prevented nor cured; either of which can be effected, *if properly and thoroughly atten-*

ded to. It is caused by an insect, in pricking the bark of the tree near the root, and depositing the seed which produces the grub, between the first of July and frosts in the fall. To prevent this, about a foot of the trunk of the tree next the root should be brushed over with a coat of some sticky, nauseous, or impenetrable substance, and this repeated as often as the substance wastes away, is wasted off by rains, or crumbles away, during the time specified above, which may be tar, train-oil, or whitewash, and a little ashes or lime kept on the ground around against the tree. When trees are affected, either in the fall or spring, dig and remove the earth around the trunk, to expose and give free access to every part affected; remove the gum, search thoroughly for the holes in the bark by which the grubs entered, prick into the bark with a sharp pointed knife: more effectually to find and trace the grubs and their holes, cut away the bark over the holes so as to lay them bear their *whole extent, length and breadth*, smooth the edges of the bark, scrape off all the gum and filth, which remove, together with all the grubs found, wash the holes and parts cut and scraped with lye or soap suds, or rub a little dry ashes over them, and close up the space dug with fresh soil; examine the trees occasionally, and more particularly every spring and fall; repeat the operation to a greater or less extent, when necessary. By this means the grub will be subdued and exterminated, and the trees flourish.

SPRING WHEAT

Has already superseded the winter species in Lower Canada, and in the northern section of the Union; and such are the casualties which the winter crop has to encounter, from the Hessian fly, from hard winters, and from the grain worm, for the latter, we have no doubt, will soon extend itself over the whole country, that we apprehend the farmers of the northern and middle states, at least, will soon find it advantageous to resort to the spring species of this grain for their main crop. Under this view of the subject, we think we shall be doing a service to the readers of the Cultivator by detailing what we know in relation to different species of spring wheat.

The *tritium aestivum*, or spring wheat, is said to be a native of southern Siberia and Sicily, whence its culture has been gradually dispersed through Europe and America. It ripens ordinarily about the same time as winter wheat, when sown very early; but when sown late it is fit to harvest in ten or fifteen days after the former. The following, among other varieties, are described in the books.

1. Having a red spike, or ear and grain.
2. Red spring wheat, with a white ear.

3. A white spike and grain. These three are all beardless varieties, of the same species, are not easily affected by moisture, and give a flour nutritious, but not so white, or in so large proportion, as the winter varieties. These are believed to be the common varieties cultivated among us.

4. *Sibeiran spring wheat*, probably the variety in Oneida, and already noticed on the authority of Dr. Goodsell. It is bearded.

5. *The Egyptian, or many spike wheat*. Loudon terms this a variety of winter, whereas with us it is a spring wheat. This is remarkable for its uncommon productiveness. The grains, how-

ever, do not yield so large a proportion of flour or meal as other species or varieties, and the flour is said to be scarcely superior to that obtained from the finest barley. It has been introduced in our country to a considerable extent.

6. *Spelt wheat*, noticed under correspondence.—Sown in spring.

7. *Italian spring wheat*. This is the variety which was introduced by Mr. Hathaway, of Rome, and which seems to have proved congenial to our soil and climate wherever it has been tried. It is bearded, the product is abundant, and the grain makes excellent flour.

There are besides those we have enumerated, several other varieties of spring wheat, which we do not find described, and with which we are not acquainted, as the Black Sea and Tea Wheat, which are probably mere varieties, which have been modified by climate and culture.

The white, or spring or summer wheats, flourish best on light soils. The ground however, requires to be well pulverized. A good preparation is a clover-ley, ploughed in May, and sown the 15th in this latitude, so as to escape the grain worm. The straw of spring wheat is generally shorter than that of the winter varieties, the berry less plump, the flour less abundant, and darker, but equally nutritious.—*The Cultivator*.

Smut in Grain.—We are surprised to learn that smut is still permitted to adulterate and diminish our grain crops, when it is a fact amply and satisfactorily established, that steeping the seed grain twelve hours in brine, and rolling it in fresh slaked lime, before sowing, will prevent the evil. The *paper-brand, dust-brand*, the two species of smut, are parasitic plants, the minute seeds of which attach to the grain, and are propelled through the sap vessels of the plant, to the germs of the young grain. The salt and lime destroy the vitality of these seeds.—*The Cultivator*.

Packing Butter.—During the summer months butter is usually lower in price than at other seasons of the year, and hence its preservation sweet and good when packed, may be an object in an economical point of view, at this pinching time of cash. Take a stone pot or jar that will hold 30 or 40 lbs. clean it thoroughly, and wash it in cold strong brine. Take of new sweet butter, well made, and free from buttermilk (if enough to fill the pot at once so much the better) work it well and put a layer of it a few inches in thickness in the jar, beat it down solid with a wooden beater, turning off the milk that will escape occasionally, then repeat the process until the pot is filled within an inch and a half of the top, with butter thoroughly pounded down. On the top of this mass pour one inch of clean pure brine, made by dissolving salt in warm water until saturated, and then cooled. Over this lay a clean cloth, and if this is secured by a clean stone, it will be better than a board. Keep the jar at a low temperature, and the butter will keep good for an indefinite length of time, only examining it occasionally to see that it is covered with the brine, and renewing it if necessary. Last summer we put down some jars in this way and they kept perfectly fine for winter use; and Judge Buel has preserved butter in this way for twenty months in good condition. The only requisites appear to,

be pure sweet butter to pack, solidity in the mass by beating, total exclusion of the air by brine, and the lowest temperature possible.—*Genesee Farmer*.

Easy method of hiving Bees.—Mr. Moses Winslow, of Westbrook, has described to us his method of hiving bees which he has practised with complete success for fifteen years, and has never known his bees to pitch on any other place than that prepared for them.

Drive down two stakes, about four feet apart, fifteen feet in front of the bee house, tie a pole across these stakes about three feet from the ground; then take a board about one foot wide and twenty feet long and lay one end on the ground at the front of the bee house and lay the other part on the pole between the stakes. Put up this board in the beginning of the season. The bees will pitch on the under part of this board, and that end which lays on the ground should be raised to a level with the other and on a barrel, box or something else. Then turn the board upside down and place the hive over the bees and fasten it with props to prevent the wind from blowing it down. By having a board not more than a foot wide, the hive will extend out over the board and the less likely to kill the bees when it is placed over them, and it will leave room for the bees that may be outside of the hive to pass into it. Mr. Winslow observed that he has sometimes found three swarms at once pitched on one board in different places. When he first puts up the board he usually rubs it with some honey or salt water, herbs or the like, but this may not be necessary.

We think that this method of hiving bees is a great improvement, as it saves time and trouble, and danger of being stung, and injury of trees frequently occasioned by cutting them in hiving bees. Another great advantage, the timorous can be saved the misery of being frightened half to death lest they should be stung while on a ladder or tree without the privilege of running from the enemy.—*Yankee Farmer*.

GREAT SALE OF IMPORTED CATTLE.

On Tuesday, at Powelton, was held the great sale of imported cattle which has been lately advertised in the newspapers, Messrs. M. Thomas & Son being the Auctioneers. Not less than three thousand persons attended the sale; and from the prices paid, we may perceive that the spirit of agricultural improvement among the bidders was very great. We consider the men who originated things like this, as the real patriots of the country, for they contribute greatly to its substantial improvement. Dean Swift, in his *Gulliver's Travels*, a book replete with deep philosophy, though the superficial merely laugh over it, says that a man who makes two blades of grass grow where only one grew before, renders more service to mankind than the whole race of politicians.—We respond to this sentiment, by saying that whoever imports one domestic animal for the substantial improvement of the agricultural interest; or invents at home, or introduces from abroad, the slightest improvement in any mechanic art, renders more service to our great country than all the ward politicians that ever caucussed, or than all the loafers in literature that ever attempt-

ed to poison the world with false taste or meretricious principles. Success to the enterprising importer, and to the liberal and intelligent purchasers.

COWS.

Name.	Age.	Purchaser.	Amount.
Ruth	6 yrs. old	J. R. Neff	\$460
Adelaide	6 "	do	390
Minna	5 "	Clarkson	520
Lucia	6 "	Neff	480
Empress	5 "	Cunningham	420
Brighteyes	4 "	do	490
Beauty	4 "	Neff	540
Vermillion	4 "	Wetherill	430
Nonsuch	3 "	Warwick	410
Media	3 "	Fisher	380
Ruby	3 "	Roach	370
Mayflower	3 "	Cunningham	515
Profitable	3 "	Neff	550
Clarkville	2 "	do	638
Virginia	2 "	Cunningham	690
Woodbine	2 "	Robinson	400
Belicia	1 "	Andrew	450
Celebrity	3 "	Wetherill	480
Isabella	5 "	Wolbert	405

\$9,110

BULLS.

Hector	2 "	J. R. Neff	475
Sir Robert	2 "	Wetherill	350
Melbourne	2 "	Sampson	320
Maxwell	1 "	Canby	400
Llewellyn	1 "	Gaskill	210
Colostra	1 "	Wolbert	260
Miser	1 "	Cunningham	470
Brutus	1 "	Neff	330
Delight	1 "	Eldridge	370
P. of Wales	1 "	Kelly	310
L'd Fairfax	1 "	Andrew	250
Bruce	1 "	Roach	360
Primo	1 "	Sampson	310
Nimrod	2 "	Hunter	470
Colossus	3 "	Hickman	310

\$14,305

SHEEP.

2 Bakewell breed, at \$100 each,	\$200
5 " " " \$95 "	475
Total,	\$14,980

TO DESTROY THE HESSIAN FLY.

A farmer in Ohio has adopted the following successful expedient:—He sows early in September, and feeds it down in November. The fly is lodged in the lower joints of the grain, and is bitten off and destroyed by the cattle or sheep which feed upon it. The wheat becomes well established by being sown early, and shoots so vigorously in spring as to be little if any affected by the fly. An experiment was made in two adjoining fields, sown at the same time: one was not fed down, and was nearly destroyed by the Hessian fly; the other was fed down, and wholly escaped the insect. We state this on the best authority.—*The Cultivator*.

MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 *Morus Multicaulis* trees, which will be ready for sale this fall. EDWD. P. ROBERTS, August 15. Baltimore, Md.

ASSES AND STRAW CUTTERS.

I. I. HITCHCOCK, Agricultural agent, Philadelphia, offers for sale several JACKS and JENNETS, equal in size and in their qualities of good breeders to any animals of the species in the United States, ranging from 13 to 14 hands high, of good age, the Jacks all thoroughly proved, several of the females having foals now by their sides, and all in foal by first rate jacks.

He is also agent for the sale of Green's patent Straw Hay and Stalk Cutter, a late invention, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1st. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it very efficiently.

2d. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed for any other machine, even when worked by horse or steam power.

3d. The knives (12 in number) owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter; and when they have to be ground, they are as easily taken out and replaced, as a scythe or hay knife.

4th. The machine is simple in its construction, consisting of very few parts or pieces, which are made and put together very strongly. It is therefore not so liable as the complicated machines in general use, to get out of order. It is about 3½ feet long, 2 feet broad, and 3 feet high, weighing about 150 lbs.

STRONG TESTIMONY.

MOBILE, Ala. Jan. 25, 1837.

I. I. Hitchcock, Esq.—Dear sir—I observe by the Farmer and Gardener, that you are agent for the sale of "Green's patent Straw Cutter." I have had one in use on my farm in North Alabama for fifteen months. I feed with cut oats about 50 head of horses, mules, &c. and find it of great use—far superior to any other cutting knife I have ever seen, and I have them that cost from 5 to \$50. Indeed its real value can be known only by those who use it.

I have commenced a plantation in Mississippi, and will this spring sow 50 acres of oats; and as a means of economy as well as an immense saving of labor, I wish my farm supplied with one of the machines above mentioned. Will you please to select me a good one, have it well oiled and packed, and shipped to this city.

JAMES ELLIOTT, Gainsville, Ala.

The machine is kept at No. 5 South Fifth street, Philadelphia. Price \$32 in the store. When sent out of the store, the packing, drayage and shipping will cost about \$1 more, say \$33. Address I. I. HITCHCOCK, au 22 eowtf Philadelphia.

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, and with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work again, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work,—a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdin & Co's. fronting Grant and Ellicott-sts., in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 50	7 50
CORN, yellow.....	bushel	95	96
White,.....	"	90	92
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 50	firm
" wagon price,	"	8 25	
City Mills, super.....	"	8 00	8 25
" extra	"	8 50	
Susquehanna,.....	"	9 37	
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhds.	hhd.	24 00	
do. in bbls.	bbl.	5 25	
GRASS SEEDS, wholes. red Clover,	bushel.	6 50	7 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	2 75	
Herds, or red top,.....	"	75	1 00
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	scarce
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	31	32
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	80	85
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.		
Red, best.....	"	1 60	1 75
Maryland inferior	"	1 10	1 40
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hhds.....	"		37
" wagon price,.....	bbls		30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured...	pound.		13½
Shoulders,.... do.....	"		11
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	10	10½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ——— No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	bound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....par	VIRGINIA.	
Branch at Baltimore,....do	Farmers Bank of Virgin.	2
Other Branches,....do	Bank of Virginia,.....	do
MARYLAND.	Branch at Fredericksburg	do
Banks in Baltimore,....par	Petersburg,.....do	
Hagerstown,.....½a	Norfolk,.....do	
Frederick,.....do	Winchester,.....do	
Westminster,.....do	Lynchburg,.....2½	
Farmers' Bank of Mary'd, do	Danville,.....do	
Do. payable at Easton,.... 1	Bank of the Valley,.... 2	
Salisbury,.... 2 per ct. dis.	Branch at Romney,.... 2½	
Cumberland,.....3	Do. Charlestown,.... 2	
Millington,.....do	Do. Leesburg,.....2	
DISTRICT.	Wheeling Banks,.... 4	
Washington, } Banks, ½p.c.	Ohio Banks, generally	6a7
Georgetown, } Banks, ½p.c.	New Jersey Banks gen.	5
Alexandria, }	New York City,.....1	
PENNSYLVANIA.	New York State,.... 3a4	
Philadelphia,.....½a	Massachusetts,.....3a3½	
Chambersburg,.....1	Connecticut,.....3a3½	
Gettysburg,.....do	New Hampshire,.... 3a3½	
Pittsburg,.....3½	Maine,.....3a3½	
York,.....1	Rhode Island,.... 3a3½	
Other Pennsylvania Bks. 4	North Carolina,.... 6	
Delaware [under \$5].... 6	South Carolina,.... 8a10	
Do. [over 5].....2	Georgia,.....do	
Michigan Banks,.....10	New Orleans,.....15	
Canadian do.....10		

INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs. JOHN T. DURDING & CO. je 27 4t Fronting Grant and Ellicott sts.

A BROOD MARE & TWO COLTS

FOR SALE.

The subscriber is authorised to sell a brood MARE with her two foals—the mare is half-sister to Bachelor, her eldest colt now rising one year old is by Messenger, a full blooded horse, the other was dropt the last spring, is by Young Tom, one of the purest of the Tom blood in the country, and is himself one of the fastest trotters and rackers any where to be found. EDW. P. ROBERTS, au 29 4t Baltimore, Md.

MULBERRY TREES.

THE Queen Ann's County Silk Company have the following Trees for sale:

50,000 Morus Multicaulis or Chinese Mulberry
200,000 Morus Alba or Italian Mulberry
500,000 Morus Multicaulis Cuttings.

The company will sell the above trees at moderate prices and deliver them free of charge in Baltimore if required. It is thought by practical growers that they should be removed in the fall. W.M. HARPER, Treas'r.

Centerville, E. Shore, Md.
The 'Silk Culturist,' and Ruffin's 'Register,' will please publish the above three times, and mark the cost at bottom. se 29 3t

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross, bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address s 29 EDWD. P. ROBERTS, Baltimore, Md.

DURHAM & AYRSHIRE CATTLE.

The subscriber is authorised to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Magnum-bonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention. EDWARD P. ROBERTS,

Editor Farmer and Gardener, Baltimore, Md. sep 12 4t

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

CONTENTS OF THIS NUMBER.

Sugar beet culture in Maryland—cure for scouring in calves—raising calves—blue grass and meadows—interesting essay on the growing and propagating of fruit trees, shrubs and vines—spring wheat—smut in grain—packing butter—easy method of hiving bees—sale of cattle at Powelton—to destroy the Hessian fly—advertisements—prices current.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 23.

BALTIMORE, MD. OCTOBER 3, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, OCTOBER 3, 1837.

A GOOD PRICE FOR A CALF.

Mr. George Beltzhoover, of Baltimore, sold his beautiful improved short horn Durham bull calf *Hampton*, a few days since for \$250. *Hampton* was got by Mr. Rezin D. Shepherd's imported bull *Orozimbo*, and is out of a cow also imported by that gentleman. He was turned of 4 months old, and high as the price may appear, will be found to be cheap at that price, as, besides being an animal of surprising beauty and size, he proceeds from the best stock in Britain, being of the Geo. Colling strain.

We take the liberty of publishing the annexed letter, not for the purpose of gratifying any vanity of our own, but in order to shew the beneficial effects which publications like ours are calculated to have on the prosperity of whole communities. No calculation can be formed of the immense increase in the wealth of the farmers of Hardy county, in the course of time, by the introduction of the fine stock to which allusion is made. We hope that the public spirit of Mr. C. will be duly appreciated by his neighbors, and that he will live to enjoy the fruits thereof, and rejoice in the benefits which he has conferred on his brethren of the Old Dominion.

Moorfield, Sept. 24, 1837.

Dear Sir: Enclosed is five dollars, which for convenience is sent to pay my year's subscription to your interesting and valuable paper, as also the subscription of Mr. G—C—, who has been induced to patronise the Farmer and Gardener from a knowledge of the great usefulness of the establishment of papers representing the agricultural interests of the country, and disseminating information calculated to induce a general participation in whatever tends towards its advancement to perfection. No better demonstration of the usefulness of a press of this kind could be had, than the fact that from accidentally seeing a num-

ber of the Farmer and Gardener containing the advertisement of the large sale of blooded stock in Philadelphia some time ago, together with their entire pedigree, Mr. C. (who by the bye is one of the most influential, wealthy and spirited cattle feeders and agriculturists on the South Branch) immediately repaired to the sale, and the result was the purchase of about three thousand dollars worth of the finest stock that ever came into the country. Now through the instrumentality of your paper, the owners of the stock in Philadelphia was furnished with a "fat" customer, and the farmers of Hardy county and its vicinity supplied with a means of improving their stock at an apparent trifling expense, and without trouble.

Before closing I am happy to inform you that there has recently been formed in this county a highly promising Agricultural Society, the first annual exhibition to take place in November next. Premiums to the amount of about two hundred and fifty dollars are being executed in your city at this time for award at the fall meeting—It is anticipated that there will be a fine display of agricultural products and fine stock on the occasion. But ere many years elapse, I will venture to assert, from the spirit evinced by the agriculturists generally upon the subject, that Hardy may challenge the country in her exhibition of stock and produce. Very respectfully, your friend and obedient serv't.

Save good seed.—Some farmers and gardeners allow their earliest peas, beans, corn, cucumbers, &c. to be picked for eating, and save "what is left," or the latest and refuse for seed; then they will complain that they degenerate. The finest and earliest of every kind of vegetable should be saved for seed; by this method, instead of degenerating, they may be improved. Every cultivator should attend to this subject, for it is very much neglected, and great loss is occasioned for want of a little time and attention.—*Maine Farmer.*

North Carolina coal.—We see it stated in the Danville Reporter, "that a bed of anthracite coal has been discovered in Rockingham county in this State; that some one competent to judge might test it, several specimens were sent to Professor Rodgers of Virginia, who without hesitation pronounced it good anthracite coal."—*Raleigh Reg.*

A prudent farmer should be unceasing in his efforts to add to his manure heaps.

WORK FOR OCTOBER.

ON THE FARM.

This is a month, as every good farmer knows, in which all our energies should be put forth; for besides saving that which we have already made, much must be done to lay the ground work of next year's crops; and with a view of bringing its appropriate labors to the notice of our readers, we will endeavor briefly to detail them.

Fall Ploughing. As opportunity presents itself, all stiff clayey grounds intended for spring culture, should be ploughed up this and the ensuing month. By ploughing 7 inches deep and taking furrows 9 inches wide, the furrows will be laid at an angle of about 45 degrees, the best possible position at which ground can be laid to receive the greatest amount of benefit from the fertilizing effects of winter frosts and snows. Grounds thus treated are always infinitely better suited to the purposes of spring culture than if left untouched. But besides the advantages arising from the mellowing effects of the weather, much less work will have to be done in the spring when time is valuable.

Gathering of Corn. If your corn is sufficiently hardened, it should be got in the latter end of this month: by so doing you save much from the ravages of crows and those animals that prey upon the corn fields, and in addition to this you are enabled to turn your stock into your corn-fields at a time before vegetation is destroyed, and thus by the time winter comes on they are put in good condition to enter upon the rigors of that inclement and pinching season of the year, a thing that every husbandman should have an eye to; for if at the commencement of the foddering season they be in good plight, the certainty of their going well through that critical and trying period will be infinitely greater.

Gathering and curing fodder and tops. No time should be lost in gathering your blades and tops, and recollect that as soon as they are dry they should be brought in from the field and placed out of the weather. By protecting them from rain you add greatly to their intrinsic value as provender, besides rendering them much more palatable to your stock of all kinds.

Gathering and preserving Potatoes. As soon as your potatoes are fit for digging, take them up,

and be sure to put them away with as little exposure to the sun as possible, and care should be taken to bruise them as little as possible.

Turnips. By stirring the earth around your turnips early this month, you will add much to their growth and increase their product.

Beets, Parsnips, Carrots. These roots should all be taken up and put away this month.

Pumpkins. As your pumpkins ripen, gather them and put them away in a dry warm room. It is important that they be housed before being exposed to the frost of the field.

Buckwheat. As you cut your buckwheat put it into sheaves,—these must be set up in the field and after a day or two bring them in and thresh out immediately. The sooner this latter work is done the better, as the grain will thresh off much easier and with a great deal less loss. After your straw is threshed stack it away carefully, taking the precaution to salt each layer of it. If you do so, in mid-winter when your provender is most wanted, it will afford you an excellent resource for your milch cows, the which will eat it with avidity, and to which it will prove a highly nutritious food if it has been properly cured.

Wheat and Rye. Those who have not sown their wheat and rye should get it in as early as possible; but no one should think of sowing either without first steeping the seed in strong brine or ley, and rolling it in lime, or ashes.

Hogs. As soon as the range in which your hogs may be running ceases to be a pasture, put them up, and if you design commencing your feeding with pumpkins, boil them, as by so doing you not only render them more nutritious by concentrating the saccharine matter, but by destroying the vegetable acid you deprive them of the power of scouring your hogs, a thing always to be avoided if possible. Once a week while your hogs are fattening, throw either rotten wood or charcoal in to them. Either will correct the acidity upon their stomachs, and keep them to their appetites.

Corn husks and shucks. These should be stacked away with alternate layers of hay and straw, and be well sprinkled with salt. By taking this precaution you will find that their value as winter food will be greatly enhanced, and that your cattle will eat them as readily as they do their hay, and if they be not so nutritious, they will be found to be good, strong, substantial winter food.

Cabbages. Towards the latter end of this month put away your cabbages: be sure to do it before the frost injures them, and they will keep much better.

HARVESTING INDIAN CORN.

There is a question of interest to farmers, which relates to the mode of harvesting the corn crop; that is, whether it is best to top the stocks, or cut the whole at the ground when the grain has fully ripened. According to the experiment of Mr Clark, of Northampton, one of the best practical farmers of our country, and of other gentlemen, grain suffers a diminution of six to eight bushels the acre by the stocks; and there seems to be no counterbalancing benefit in the fodder, unless at the expense of carrying the stocks to the borders of the field, that they may be secured before they become blanched and half ruined. And it is no protection against early autumnal frost, but rather exposes unripened grain to be more injured. Hence, so far as regards these two modes, all who have made a comparison, seem to concur in the opinion that stripping the corn of its tops and leaves is a bad practice.

William Carmichael, of Virginia, has given us in the Farmer's Register, his experiments in this matter, which go to corroborate the conclusion we have drawn. He took, promiscuously, one hundred ears from corn that had been topped and one hundred ears from that which had not been topped growing side by side. The first, weighed, on the cob, fifty pounds—shelled, forty-one pounds and measured twenty-one quarts one pint. The other fifty-four pounds—shelled, forty-six pounds, and measured twenty-six quarts, showing a difference of nearly one-fifth, in favor of unstripped or untopped corn. The fact is, that topping not only prevents the farther elaboration of the sap, which can only take place in the leaves, and which is necessary for the growth of the corn, but it deprives the grain of much that is already elaborated, and on its way to the grain. If a fruit tree is deprived of its leaves, before the fruit has attained its growth, or mature flavor, the fruit will no longer grow; nor will it attain high flavor, for its supply of elaborate blood, or vegetable food, is cut off by the loss of leaves. We have noticed this particularly in the plum.

Satisfactory experiments have not been made to determine whether it is most advantageous to cut the crop when the grain is merely glazed, or to wait till it is perfectly ripe. This will depend upon the amount of loss, if any, in the grain, by early harvesting—the relative value of the grain and fodder, and the prospect of both being injured by early frosts—for neither are liable to suffer from frost after the crop has been cut and put into shocks. It is to be noticed, that, in early cutting, the stalks are succulent, and abound in elaborated sap, on its descent from the leaves to the grain, and that this supply of food to the grain continues to flow probably for some days after the corn is in the shock, and if so, the grain itself continues to improve though we think it likely that the corn undergoes some trifling diminution. But if frost is likely to intervene before the complete maturity, there is no doubt but the corn will suffer less in shock than it will standing, while the fodder will be materially injured by frost. Admitting that there is a small loss in grain by early cutting, though it is undoubtedly less than when it is topped, the difference in the value of the fodder, under the two modes of management, is vastly in favor of early harvesting.

We do not pretend to calculate to a nicety the difference in nutritious properties, of cornstalks cut in a succulent state, early in September, well cured and well housed, and those left standing till October or November in the field, but we should think it fifty per cent. Well cured cornstalks afford an excellent winter food for neat cattle.

Several of our acquaintances have kept their neat stock, almost entirely upon this fodder during the last winter, and we have done the like, having first cut ours in a cutting machine; and so far as we can learn, the cattle kept upon them are in excellent condition.—*Albany Cultivator.*

THE LATE WHEAT CROPS.

To the Editor of the Richmond Enquirer.

SPRING WHEAT.

MOUNT CARMEL, Matthews county, ?
Aug. 23, 1837. }

Sir: During the past winter, I received from J. Hathaway of Rome, New York, two barrels of Italian Spring Wheat, containing a little more than six bushels of wheat and oats. On the 6th of March, I made a strong brine and poured the wheat in it; in order to divide the oats from the wheat. It answered very well, for I got out nearly the whole, amounting to a little more than half a bushel, which left $5\frac{1}{2}$ bushels wheat. On that day I sowed four bushels on a fallowed lot, containing four and a half acres, and on the next day, (seventh) I ploughed in one and a half bushels in about two acres on corn land. The last lot came up about ten days after the first, and the growth rather better, as the rains took it about the time it was heading—the fallowed lot suffered very much from the drought; and when it was cut a part was ripe and a part green. The result of the whole gotten out and measured, was sixty bushels good wheat—about 11 to 1. The land was by no means rich. The fallowed lot was touched with the fly, and the other lot with the rust, and I think the rust did more injury than the fly. I cut the fallowed lot on the 6th and 7th July, and the other in about ten days after.

We had a severe wind on Saturday and Sunday last, which injured our corn and ruined at least half of our fodder.

I am, yours, very respectfully,

JOHN R. LUMPKIN.

WHEAT—We have seen several specimens of Italian and common wheat, of this year's production raised in this town, and we have no hesitation in pronouncing it as good as any produced in the most popular wheat growing regions; the berry is large, plump and perfect. The frosts which injured the crops in Cortland and some of the northern counties were not felt in this vicinity. Our farmers generally give the Italian wheat the preference, as it has turned out best this season. With the exception of now and then a piece of winter wheat which is a little smutty, the crop has come off well, and altogether much better than was anticipated. The quantity raised this season exceeds that of the three preceding years.
Oxford (Chenango, N. Y.) Repub.

THE HARVEST—The crops have at last been collected, and they exceed those of all former

years. Ohio, since her first settlement by white men, has never seen a harvest of such abundance. The wheat, though a month later than in former years, stands unrivalled, both in amount and quality. Some of it, in this county, has been threshed and brought into market. The millers and merchants pronounce it superior to any they have ever seen.—*Massillon (Stark county, Ohio) Gaz.*

WHEAT CROPS—The wheat in this county far exceeds the most sanguine expectations of our farmers. As a specimen of its yielding, we give the following proof which came under our own knowledge: A farmer, the other day, took three bushels of his new wheat to mill, and when it was ground, it made *one hundred and fifty* weight of as fine and pretty flour as ever was put into a bag!

One hundred weight of flour from three bushels of wheat is usually considered a tolerable good turn out.—*Goshen (Indiana) Express.*

The wheat harvest in the upper part of South Carolina is now over, and the crop has proved very good. A Greenville paper says, "it has certainly been many years since the harvest throughout the southern states has yielded so abundantly, or so large and beautiful grain."

GATHERING AND PRESERVING POTATOES.

With regard to the time in which potatoes should be gathered, we have found that practical farmers entertain different opinions. It is however, acknowledged by all that when intended for consumption and not for seed, they should not be gathered till they are ripe. The ripeness of the potato may be perceived by the appearance of the tops, which will begin to decay as soon as the roots have arrived at maturity. After that period we are told by some cultivators, it is important that the potatoes should be gathered and housed as soon as convenient, or immediately after the tops are decayed either by ripeness or frost. Others say that potatoes will keep best in their native beds till the ground is frozen. But at any rate, it is best not to defer digging till very late, lest cold weather should shut them in the ground till spring and perhaps destroy them.

The old fashioned mode of harvesting potatoes was, to dry them in the sun as you would grass for hay. Rees' Cyclopaedia directs, "as soon as potatoes are gathered, they should be *allowed to remain some days to dry before they are stored.*" This we believe to be wrong, especially in our climate; for an exposure of two or three days to a cloudless sun in September or October, would cause potatoes to turn green, taste strong and bitter, and become in some degree poisonous. It is not said by practical farmers, that the less potatoes are exposed to sun and air after being taken from the ground the better, and that it is advisable to permit some part of the soil in which they have grown to adhere to and mix with them, when housed. It may be best, however, not to dig and deposit potatoes immediately after a heavy rain, but permit them to remain a few days in the hills, to get rid of their superfluous moisture which will in due time be expelled by the vital energies of the roots.

Mr. Buel of Albany, observes, "it were better

that the sun never shine upon potatoes, that they should be housed with all the dirt that adheres to them, that it is beneficial to add more dirt in the bin or cask, to exclude external air as much as possible, and that their surface should be kept moist and the atmosphere which surrounds them as little above the freezing point as possible."

Germantown Tel.

[From the Silk Grower and Agriculturist.]

Manures are the Philosopher's Stone to the farmer, and to make, preserve and judiciously apply them, is an important branch to which the attention of every agriculturist ought to be directed.—It should be his first care to procure as much as he possibly can, and his second care to preserve from what he accumulates. To these two points farmers cannot bestow too much attention—every acquisition of one or improvement in the other adds so much to his capital, and gives him more than a hundred per cent. interest. The price set upon manure in this country is as yet far from being adequate to its real value. Those who live in situations where it can be purchased cannot apply their money to better advantage.

The amount collected by the majority of our farmers is small to what it might be by suitable exertion. It is frequently suffered to remain in a situation where it is washed off into brooks and ponds, or uncultivated lands, where it is entirely lost. It is more frequently permitted to remain in other more *secure* situations as it is thought, and poison the atmosphere with its *fragrance* to the no small annoyance of society, and to the starvation of the plants in the vicinity to which its proper application would be grateful.

The best methods of preserving this real article is worthy of attentive inquiry.

1st. The barn-yard should be dishing so as to retain all the liquid manure, and unless already on impermeable soil, should be paved with clay, and should be so located as to secure from wash more than the quantity of water which must necessarily fall to the ground.

2d. A supply of litter, such as worthless vegetables, straw, brakes, turf, mud, and rich earth from the way-side, should be provided to absorb all juices of the yard and the gases evolved by fermentation.

3d. Winter-heaps should be defended from the rain and sun by a roof, and in general, should be spread upon the ground in the spring, and ploughed in.

4th. Cattle should be kept in the yard in the winter season, and as many yarded during the summer as can be convenient.

5th. What manure necessarily accumulates upon the fields should be gathered up or knocked in pieces, according to the old custom, with a suitable mallet, by a lazy boy.

6th. The hog-yard should be tightly enclosed, and furnished with an abundant supply of materials which the occupants will convert into the best of manure and ask you nothing for it. Lazy as they are, they may be made to work out at least half their living without ever mistrusting it. It has been thought by some that they might be so managed as to pay the whole expense of their keeping.

Thus much for the preservation of manures.—Next let every farmer examine his farm to see if

there be not some mine of wealth in shape of a marl bed, or lime bed, or at least if there be not an accumulation some where of decayed vegetables, or some ingredients of soil in which his cultivated fields are deficient. It is believed there are few farms that have not some advantages of this kind—some quagmire perhaps which may prove the *making* of the farm. Vegetation draws her stores from vegetable, animal and mineral kingdoms, and there are no definable limits to her improvement. Our soil instead of becoming less and less fruitful as is the mistaken opinion of some, may by a proper cultivation, be made more and more prolific. Our earth contains the materials necessary to make her surface a garden. All that is wanting is the *diligent hand*, and the *intelligent head*, to make her plains and valleys, her hills and dales thick with herbage, and wave with the golden grain.

CINCINNATUS.

Keene, August, 1837.

[From the National Intelligencer.]

FLORA CESTRICA.

This is the title of a closely printed volume of near 700 pages, which we have lately received, containing an enumeration and description of the flowering and filicoid plants of West Chester co., Pennsylvania, with notices of their properties and uses in medicine, domestic economy, and the arts; by Dr. WILLIAM DARLINGTON. This is a work which deserves very high praise, as well on account of its valuable uses and its accuracy, as the great labor which its preparation involved.—The author of the work is a gentleman who has devoted a large portion of his life to the beautiful science of Botany, in the pursuit of which he has always been an enthusiast; but some degree of enthusiasm is essential to excellence in the sciences as well as the arts. This work is the result of the labor and explorations of many years, and reflects the highest credit upon the industry and perseverance of the amiable and intelligent author.—His County and State ought to feel proud of such a citizen as Dr. Darlington, who thus spends his time and his means in recording and describing its various vegetable productions, consisting of nearly three thousand genera and species. The work has been published at the expense of the author, a large part of which he cannot expect to be reimbursed for many years, but which did not enter into the consideration that induced him to undertake it. His motive could only have been the advancement of science and the reputation of his county. The *Flora Cestrice* is not, however, confined to the limited territory of Chester, but extends to the whole country, as many of the plants the author describes are to be found in various portions of the United States, and of course its utility is general. To the young botanist it will be found very useful from the full but condensed descriptions it furnishes of the plants he may be seeking to discover. Three or four other works of this kind have been prepared and published in this country. Such as Bigelow's *Florula Bostoniensis*, Elliott's *Botany of South Carolina and Georgia*, &c. which are very useful, and the work of Dr. Darlington is not less meritorious and valuable. Indeed, in most cases, his observations are, we think, more full and satisfactory. We give a few specimens:

Zea, (Greek *zao*, to live; the seeds contributing

eminently to the support of life.) *Zea Mays*, Indian corn—maize. *Obs.* There are several varieties of this plant, with the seeds yellow, white, or sometimes dark purple; and one which is much smaller, and comes sooner to maturity. I have also seen a singular variety, in which every seed on the receptacle appeared to have its own husk, or spathe-like covering, in addition to the general envelope. The Indian corn is one of the most interesting of the Graminae; rivalling the sugarcane and the rice in intrinsic value, and, in this region at least, ranking next in importance to wheat itself. It is universally cultivated here, being generally the first in the routine of crops, on breaking up the lay, or sod. The seed is planted early in May. No other species of the genus is known in the United States. *Convolvulus Batatas*, Vulgo, sweet potato—Carolina potato. *Obs.* This exotic species is frequently cultivated here for its fine esculent tubers. But those produced in the sandy soil of New Jersey are considered so much superior in quality, that our chief supply is derived from thence. The plant is propagated by cuttings of the tubers, which are planted in the beginning of May. It never produces flowers with us. Lindley says this is the potato of Shakespeare, and contemporary writers, the *Solanum tuberosum*, or Irish potato, (now so common) being then scarcely known in Europe. *Solanum Tuberosum*, common or Irish potato. *Obs.* This truly valuable plant is cultivated by every owner or occupant of land. It is one of the indispensable crops for a family. Long culture has produced numerous varieties; the most esteemed of which, at this time, in this country, produces a large oblong white tuber, with the skin often tinged with purple. It is called the "Mercer Potato." The plant is usually propagated, not by means of the seed, but by cuttings of the tubers, which contain numerous buds called eyes. We are indebted to South America for this most important vegetable. My friend, the late Dr. Baldwin, collected native specimens of it near Montevideo, on the river La Plata, in the year 1818.

We need scarcely recommend this valuable work to the botanist, as every botanist will doubtless rejoice at its appearance, and be grateful to its author for the contribution he has furnished to a science as useful as it is beautiful and interesting.

[From the National Intelligencer.]

HORTICULTURAL EXHIBITIONS.

Horticulture, as an art, has improved greatly within a few years, in this country. Societies have been established in different parts of the United States, by amateurs and practical gardeners, whose united labors have given a wonderful impulse to this healthy and delightful pursuit; and the consequence has been, an obvious improvement in all the products of the garden and orchard. Such has been the manifest utility of these associations, that men, without the least knowledge of gardening, and without even a spot of ground to cultivate, have become members of them, from a desire to be useful, and to promote their laudable and beneficial objects.

A society of this kind has been established for some years in BALTIMORE, called the HORTICULTURAL SOCIETY OF MARYLAND, which, like the one established in this city, is said to be doing

wonders in the way of improvement among practical gardeners, by the emulation it has excited through the incentive of public admiration and liberal premiums. This Society, we learn, proposes to have its fifth annual exhibition on the 27th, 28th, and 29th of this month, when it is expected there will be a very splendid show of horticultural productions. An invitation will be given to all the gardeners and amateurs in Maryland and the District of Columbia to a fair and honorable competition, with which, we suspect, many of them would comply, had not our Society determined at its last meeting, to have an autumnal exhibition here this month.

At both the exhibitions, here and at Baltimore, we have no doubt there will be a most interesting display of the fruits and vegetables of the season.

This will be the first fall exhibition of the Columbian Horticultural Society; and from our knowledge of the activity, industry, and skill of its members, and the adaptation of our soil and climate to the production of fruits and esculent vegetables, we have every reason to believe that this exhibition will be, in no ordinary degree, interesting and gratifying to the Public. We should be pleased to see both attended by crowds of visitors and hosts of competitors; as we are sure they will be worthy the industry and skill of the enterprising individuals who get them up.

The PENNSYLVANIA HORTICULTURAL SOCIETY will hold its tenth exhibition, at the Masonic Hall, Chesnut-street, on Wednesday and Thursday, the 20th and 21st of the present month.—The committee charged with the preparatory arrangements have publicly solicited contributions in fruits, flowers, or culinary vegetables; stating that specimens of either, of a quality meriting distinction, will be thankfully received and publicly acknowledged. When transmitted from a distance, by public conveyance, the Society say they will cheerfully defray the cost of transportation.

They may be addressed to Messrs. D. Landreth & Co., at their Seed Warehouse, No. 63, Chesnut-street.

[From the New York Star]

The cultivation of Sugar Beets in Ohio.

When the maple forests bow to the axe of the woodman, as they must, in the tide of emigration flooding to the West, Ohio must look to the Beet if she wishes a domestic substitute for sugar, and cannot get return cargoes of the article cheap enough for the produce she ships to Louisiana. A Mr. Pugh, according to the Cincinnati Gazette, has already anticipated this culture on his farm, a few miles north of that city. He has raised this year sugar beets 30 inches in circumference, and weighing 22 lbs., from seed procured in France, and Mangel Wurzel of nearly the same dimensions, also from French seed. Mr. Pugh thinks it as easy to raise 50 tons of these beets from an acre as 50 bushels of corn. They are capital for cattle and stock hogs, and young sucking calves prefer them to milk when properly prepared with milk. Among the 56 head of his Durham breeds, those that had fed on beets could readily be distinguished by their fat and sleek appearance; the beets are infinitely better when boiled.

The apparatus and fixtures used by Mr. Pugh for boiling, or rather steaming, food for 300 hogs

and 40 or 50 cows with other stock, cost about \$150, and consumes a quarter of a cord of wood per day.

Among the Durham cattle on the farm of Mr. Pugh was observed some very fine young males, and among them Lebanon, an animal of superior growth and figure.

Mr. P. has not attempted to make sugar from his beets, but if its manufacture is profitable any where from this article, it would certainly be so here, for no soil can produce a better growth. Two hands can prepare the ground, plant and cultivate 5 acres of beets in a season, and the product would doubtless yield many tons of saccharine matter.

Culture and Manufacture of Silk.—In the cultivation of Mulberry and the rearing of the silk worm, there are no difficulties which cannot be overcome with very little study and observation. So simple and easy is the management of this worm, that children can readily be taught to give it all the assistance and attention necessary to its comfort and the completion of its labours. We reared the silk worm ourselves for three years, when a boy, and we can truly say that it was the most amusing employment we were ever engaged in. We have reverted to the time, as the most pleasant of our childhood.—From two trees that were planted when the Mulberry was first introduced into New England, we reared from five to six thousand worms of a season, and without any of the knowledge which is to be obtained from books of foreign writers on the subject, or of the practical information which has been sent forth to the American public within the past few years. Our own experience induces us to advise all those who are fond of innocent, pleasant, and at the same time profitable employment, to turn their attention to the culture of the Mulberry and the rearing of the silk worm. Our climate and soil are well adapted to the business, and those who engage in it will be abundantly rewarded for their labors.—*Calhoun county Patriot.*

Potatoes, Food for Horses.—An Irish writer on husbandry, whose name is Martin Doyle, and whose works were published in Dublin, 1830, has the following remarks.

With respect to potatoe-feeding for horses, I recommend it from an experience of some years. My horses are old, (one of them at least 20 years of age,) but they are in high spirits and condition, from having every evening after work, excepting during the soiling months, (when grass, &c. was cut and carried to them) an abundant supply of boiled potatoes (warm) regularly given to them; but as the authority of T. C. Curwen, Esq., M. P. of Workington Hall, Cumberland, is infinitely more valuable than mine on this subject, I shall quote the following passage from his "Agricultural Hints:—"

"It requires from 5 to 6 hours for a horse to masticate a stone [14 lbs.] of hay, while he will eat a stone of potatoes in twenty minutes or less. The saving of 4 hours for rest, is alone sufficient to produce the greatest difference in the health and condition of the animal. After great fatigue also, a horse would be tempted to take warm food when he would not eat hay. I have at this time my work horses which were purchased six years

ago of a farmer, who was selling off his stock as worn out, and of little value, which are yet able to do their work with the best horses I have. I think there is little doubt of the life of this valuable animal being considerably prolonged by this mode of feeding. I have begun to mix an equal quantity of cut straw and potatoes; racks are according to this mode of feeding, as unnecessary as they are productive of waste; for to save trouble, they are always filled; and what is not eaten is always so tainted with the breath of the animal, as to be washed."—Probably steamed mangel wurtzel and other roots would be valuable as food for horses.—*N. E. Farmer.*

Great Crop of Grapes.—It is stated in the Cincinnati Post, that Mr. John Starbuc, has growing in his yard, at his dwelling on Vine-street, two grape vines, the bunches on which were counted and number *two thousand seven hundred and forty!*—the whole growing on the surface of twenty-four feet square!!

CORN—Some weeks since we published a letter from a friend near Port Deposit, stating that his trial of Mr. Pierce's rapidly growing corn had proved a failure; we felt it a duty to insert the letter, because it was from a notice in our paper that the writer thereof had been induced to try the corn.

Yesterday, Mr. Henderson, of Lancaster county, brought to our office a few ears of corn, gathered on the 20th of August, from Mr. Pierce's seed corn planted on the 10th of May. He says that it has more than equalled his expectations, and liable as our corn crops are to injury, he would never be without an acre or two from this species of seed.—*Phila. U. S. Gaz.*

At a late agricultural meeting in this town, the Rev. Mr. Barstow stated a fact which should be more extensively known. He last year bargained to let his few acres for the season, but the man objected to half an acre of sandy land, as not worth cultivating. "Very well," said Mr. B., "I will take care of that myself." He planted it with yellow corn, having only a thin coat of manure, the last of April—covered it double the usual depth, so that the root was safe, while the frost nipped the top off once or twice. When it was fit to hoe, he spread around each cluster of stalks one-third of a pint of house ashes. In the fall he husked from the half acre seventy bushels of sound ears.

Keene (Maine) Sentinel.

FEED FOR CATTLE—A little town near Frankfurt, in Germany, is noted for its remarkably fine cattle. They are fed in the following manner: straw is cut short by means of a straw cutter; it is then put into a cauldron, with the addition of potatoes and carrots, and boiled till it forms a kind of jelly; this mixed with a sufficient quantity of water, is served to the beasts. The animals so fed require no water, and so well do they thrive on this mess, that they are, notwithstanding the summer labor, ready for the butcher at the end of the year.

All sorts of grain which is intended to be given to cattle or horses, is best ground. In order to obtain the greatest benefit from it, boil it in water, and while hot add cut straw, stirring it well,

add when cool it will be fit to feed out.—*Practical Farmer.*

AUTUMN.

The subjoined, from the Louisville City Gazette (Kentucky) of September 1, breathes the soul and freshness of some of the most delightful pages of HOWITT. Will the editor give us more such morceaus, and vex his fine imaginative brain less frequently with the muddy pools of party politics? The greater portion of our noble kings of the forest are here beautifully embodied. The picture is quite original, and purely American.—*N. Y. Star.*

AUTUMN! Thou art with us. Already we feel the prickles in the morning air. And the stars shine out at night with a peculiar lustre. Shortly, we shall see the rich tints which thou flingest on the woodlands, and then thy russet livery. And if thou art bright, and gay and beautiful, thou art not less lovely, than thy hazy atmosphere spreads a voluptuous softness over nature; when the sun himself is shorn of his beams, and like a pale plant wanders through the sky.

Autumn! with its fields of ripening corn, and its trees laden with fruit, and its vines with the clustering grapes

"Reeling to earth, purple and gushing," and clear, sparkling streams, and salmon-fishing, and field sports, is here.

Out in the Autumn woods! The broad leaf of the sycamore hath fallen upon the streamlet, and hath passed on with its tumbling waters, or disports them where it has rested against some obstruction. The buckeye is bare; the maple is golden-leaved, save where is spread on a field of orange the hectic flush which marks approaching decay, or where the sap is yet faintly coursing, and a delicate green remains. The oak is of a deep crimson, and the gum even yet of a bloodier hue. Far off on the tall cliff, is the spiral pine and cedar, in their eternal green.

Out in the autumn wood! When the leaves are fallen, like the flakes in the snow-storm. It is a time for reflection; it is a time for lofty contemplation. The soul is full, if it have the capacity to feel, and it gushes forth, though the tongue speaks not. And yet it is irresistible, to roam the autumn wood, and listen to the thousands whispering tongues which fill the air. The fullness of feeling must be relieved by the merry shout and loud halloo.

We welcome thee, Autumn. Thou art the dearest to us of the seasons—save the flower-month. We hail thy coming snow, not as has been our wont. Since thou wert last here, we have lost friends; and in thy wailing winds, and out beneath the sky, and roaming through thy varied gorgeous-liveried woods, our thoughts shall be turned to their memories.

The culture of silk in America succeeds so well in every respect, that there is no longer room to doubt of its being eventually very extensively and profitably followed up as a pursuit. Heretofore the greater portion of the specimens of this valuable product have been the result of experiments by individuals, on a small scale, but at present larger quantities prepared in factories for sale are beginning to make their appearance in market. The silk thus offered has every thing to recom-

mend it in point of lustre, smoothness and strength and will, it is said, stand a comparison with the best Italian. With such facts before us why need we be longer tributary to foreign nations for this valuable article the payment for which at present takes so much capital out of the country?—*Balt. American.*

[From the New York Farmer.]

ORIGIN OF THE MANUFACTURE OF "POUDRETTE" OF THE FILTH OF PARIS.

I have read with much attention and pleasure, the useful information contained in your late No., relative to *poudrette*. In France it is an article of great value, and a source of much profit to the companies vested with the exclusive right (disposed of at auction) of cleaning the privies in large cities.

Some sixty years ago, Paris was in a state of shocking filthiness, and the police by no means as well directed as at present. Fountains furnishing throughout the day, streams of pure and fresh water—sewers of ample dimensions 6 feet deep and 5 feet wide,) emptying into the river; companies appointed to sweep and clean the streets every evening before ten o'clock, and to make a proper disposition of the manure, were not then in existence. The streets were narrow and badly lighted, and that part of Paris, yet called the *city*,* would give but an imperfect idea of what the whole metropolis was before the revolution.

M. Boursault, who had been unsuccessful on the stage of one of our minor theatres, was the first man who entertained the idea of regulating and improving the administration of this department of the police. He solicited from the Corporation the use of a piece of ground, where the daily produce of the city might be deposited until converted into good manure, his plan, being founded upon free ventilation and action of the sun, required a large space of ground. He was authorized to use the *Petit Pantin*, better known as *Mont Faucon*, and that place has since been the rendezvous of all manufactories of dangerous and disagreeable nature, horse and hog slaughter houses, &c.

For several years M. Boursault carried on his business to the general satisfaction, and to the benefit of agriculture, he made an immense fortune, which he used nobly.

If the Corporation thought it just and fair that he who had been a benefactor to the city should be allowed to enjoy the profit of the business he had so well organized, it was reasonable that his profit should not pass entire to his successors, and since M. Boursault has left the management of the general cleansing of Paris, it is every year given to the highest bidder as you term it, and is not left to adventurers, as the editor of the Farmers' Register states.

But as in society we constantly aim at perfection, the process which has been found so useful for 40 years, has become insufficient, and a positive nuisance. While the Corporation looks for another and more remote location, science has been consulted for a process that would dispense

*The reader may form some notion of this Parisian "Five Points" when it is recollected, that it was built before carriages were in use.

with so many reservoirs, the emanations of which are very disagreeable, if not dangerous, and even injurious to the manure prepared.

Long ago, M. Chaptal endeavored to remedy the mode of evaporation in the sun; but the suggestions of that great chemist were then only pursued in their application to the arts and manufactures, while his ideas on agriculture, though considered good and advantageous, were not so generally admitted into practice. But the benefits of 20 years peace, and the general improvement have set many minds to work, and Chaptal will be found once more a benefactor of mankind.

You are perfectly correct, Mr. Editor, when you say that a French chemist has found in a vegetable matter, the means of drying and pulverizing in a few hours the contents of privies. The contracts that exist between the corporation of Paris and the bidders of the *general cleansing* of the city, prevent the immediate application of the process—but as no such obstacle exists in New York, I think you deserve credit, encouragement and protection, for your efforts to found in your city so desirable an establishment, in which I wish you complete success.

ON MAKING MEADOW HAY.

By Patrick Miller, Esq. late of Dalswinton, Dumfries-shire.

Making hay is universally allowed to be one of the most important branches of agricultural pursuits, but the principle on which it should be conducted is not at all understood on this side of Tweed.

In England, however, the operation is very differently performed, and with very different and more satisfactory results; for by their system, a great deal of time is saved at a critical period, and a far superior article of food for their animals is produced.

Besides the great and necessary despatch which is used in England, much skill is also employed to produce and maintain a requisite degree of heat or fermentation in the stack when the hay is put up, in order to convert the juice of the herbage to a saccharine state, which is found to be both more palatable, and likewise more nutritious for all bestial that is fed upon it.

In Scotland, on the other hand, it would almost seem as if diligence was employed to unnecessarily procrastinate the work, and subject it to the risk of unfavorable changes of the weather; and by the excessive bleaching and drying of the grass, which is so universally practiced, it is deprived of the possibility of assuming the saccharine quality; and what sap is permitted to remain in it, is converted to starch, which is neither so agreeable nor nourishing for horses as hay made upon the principle which I am anxious to recommend, and from whence arises, as is easily to be perceived, a greater waste of hay in Scotch than in English stables.

Having premised this much, I proceed to detail the practice which I have pursued for many a by-gone year on my farm, which, being on a limited scale, shall therefore confine my description to the narrow compass of my own operations, but which of course, easily admits of being extended to a larger field, as circumstances may require.

When the hay season arrives and the weather

is favorable, and when I perceive, by the height of the column of mercury in the barometer, and likewise from the appearance of the skies, that there is a likelihood of its continuing so, I set a couple of mowers to work very early in the morning, each attended by a boy or girl about 12 or 13 years of age, and, as soon as the men have made half a dozen cuts of the scythe, the two boys or girls take up the swath and shake it out as thin as possible on the ground where it grew, there to lie and wither till after breakfast.

On the return of the mowers from their breakfast, a stout active woman begins to turn with a rake, in the *direction of the sun*, the grass which was first shaken out, the men and the boys cutting down and shaking out in the same way—as to the morning.

When the woman has finished turning the early cut grass, she immediately goes to the spot where she began, and shakes it out again as thin as she can; and when finished, she commences turning by large rakefulls where the mowers resumed their work after breakfast, and continues her task in the same manner as when she began in the morning, always turning as already said *in the direction of the sun*.

On the people returning to the field from their dinner, the two boys immediately begin to shake out that part of the second turned grass which had not been accomplished before going to dinner—and when that is finished, they commence turning what was last cut, and then shake it all out again.

At this period, the two mowers and the woman proceed to rake the first cut hay into what is called a wind-row, and one of the men commences with a pitchfork to put it into cocks of about 10 or 12 stones weight, and between 6 and 7 feet in height, *but on no account is a foot permitted to go upon it, for it cannot be put up too light*, neither is it to be roped, for if the weather is calm, a few hours after it is in the cock it will so compact itself, that it will require a violent wind to overturn it.

Thus, the hay which was cut in the course of the day will be through this mode of treatment sufficiently dried and secured by the evening against any change of weather, which may occur in the course of the night, and it will stand exposure to a storm full as well as the hay which is so sadly mismanaged by the improper system at present in use.

So far the process only relates getting quite of the redundant sap in the herbage, but if the hay gets rain or any adventitious moisture, either in working or stacking, it must be carefully dried off before being put into the stack, or so brisk a fermentation will ensue, that combustion will infallibly take place.

The next part of the operation is stacking the hay, and this may take place, if the weather continues fine, on the second or third day after the last cock was put up.

In making this kind of hay, the great and important object is to get it to ferment or heat in the stack, for the purpose of making it evolve its saccharine quality, as in the malting of grain, and as effected as follow:

If a round stack is intended, let a common stack be well crammed full of hay or straw, and placed

erect on the foundation where the stack is to be reared, and then begin building all around it with the first cut cocks, intermixing now and then a few of those last put up, in order to promote the fermentation; and when the stack gets as high as the top of the bag, the worker pulls it straight upwards, and so continues working around and pulling it up till the stack is finished, and in this way a chimney is formed for the escape of the nascent gas.

Should a long stack be preferred, then a chimney must be brought out at the peak at each end, and one in the middle by the same means if a large mass of hay is put in the stack; and in conclusion, I recommend that these vents shall not be closed for a month, or while any perceptible fermentation is going on.—*Quarterly Journal of Agriculture.*

To the Editor of the Farmer and Gardener:

LYNCHBURG, Sept. 12, 1837.

Dear Friend: Enclosed is \$13 to purchase a barrel of your Spring Wheat. Direct it to the care of Jabez Parker, Richmond, Va. Could I ask of you the favor to send me a few ears of your Baden corn. Is it a small northern variety, that will require close planting, or is it similar to the twin-corn cultivated to some extent in the lower part of this State? It would please me to procure a stalk containing as many ears as common, which you could put in the barrel with the wheat. Should your corn not be sufficiently matured to gather and send, the sending of the wheat might be delayed till it was.

I would like to receive a few copies of your Silk Manual. There is an increasing enquiry upon the subject of Silk culture hereabout, and on application to me for information, I knew no where to point them to seek correct and extensive information, as is contained in your manual. I have gotten a little under weigh myself in this business. I have rented a little farm adjacent to a friend who has already a thriving young orchard of the *morus multicaulis* growing—and on another farm about two miles from town I have 7 or 8000 fine, flourishing trees of the same kind growing, and a large nursery of the White Italian Mulberry; besides many standard trees. I have got a few worms the past season, and so gratified am I with my experiment thus far, that I feel encouraged to enter extensively into the silk making business. My experience so far will make me dissent from your idea that it will be injurious to the Chinese mulberry tree, to strip it twice of its foliage in one season, to feed a second crop of worms. My cuttings planted this year, upon a poor broom sedge field, broken up in the spring, without a particle of manure, have grown so luxuriantly, that after divesting them twice of their leaves to feed the worms, about the 1st of August had to be stripped again to check their growth, and still are now from 3 to 5 feet high, with many lateral shoots and branches, clothed with a thick covering of large, beautiful green leaves, measuring from 6 to 12 inches in diameter, which, my Superintendent, who has both great zeal and ability in his management of the business, says, must be again clipped off to check the growth of the tree that the wood may harden and mature, to enable it to stand the approaching

winter. I repeat that all this has been done on a proverbially poor field, with no exciting or nourishing aid but a little plaster sprinkled over them the 1st of July, and the cuttings not started in a hot bed, but set out in the open ground about the middle of April, incurring the severe drought which prevailed here till the last of May.

I will write you more upon this subject hereafter.

In the mean time permit me to subscribe myself your sincere friend.

Remarks by the editor of the Farmer & Gardener.

We are proud in finding that our intelligent correspondent dissents from the opinion expressed by us that it would be injurious to feed a second crop of worms from the same trees the same season, as we have great respect for his opinion; and with all courtesy defer to its justness. Our opinion was formed from analogy, and we are truly happy to find that the *experience* of our excellent friend goes far to establish the important fact, that *two* crops may be fed without detriment the same season. From these premises it is obvious that we have *underrated* the profits of the silk culture, a fact of deep moment to those who may feel disposed to enter into it.

The experiment he has made in cultivating his trees in *poor sedge ground*, and its *success*, is also of vital interest; and we feel not a little gratified that our own views upon the subject has been so fully corroborated.

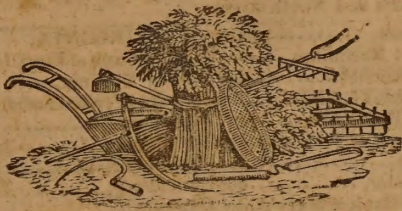
As soon as our *Baden* corn shall be sufficiently matured to do so, we shall take pleasure in complying with his request with respect to sending him a stalk. In the mean time, however, we will remark, that the *Baden* corn is a tall variety of *white corn*, interspersed with a few reddish tinged grains: that it is not a *northern* but a *Maryland* variety, brought to its present state of perfection by Mr. Thomas N. Baden, of this state, a gentleman who has devoted 22 years of his life to that noble object. In good ground, under judicious culture, it will attain the height of from 12 to 15 feet, and is as *prolific* of *fodder* as of *ears*, a most desirable object in those districts of country where *fodder* is the chief provender relied upon for winter feed. Its great height will at once indicate that *close planting* does not suit it. It will, nevertheless, bear 5 feet by 3, with 2 stalks in a hill. Its yield is from 3 to 7 ears to the stalk, according to its advantages of *soil, manure* and *culture*.

Preserving Pumpkins—A correspondent at Union Bridge, Maryland, under date of May 9th, says—"in looking over the Farmers' Cabinet today, I find a request from one of your subscribers, for information as to the best method of preserving pumpkins through the winter. I answer that

the way to preserve them one or more years, is, to pull them before the frost comes on, and keep them in a warm dry room. This is my method, and I have now several large ones in my house, in a fine state of preservation; and my neighbor, Mr. Davis Lightner, one of your subscribers, has them two years old at this time, weighing 43 lbs. each. They are very fine.—*Farmers' Cabinet*.

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat. Address, (post paid) EDWARD P. ROBERTS, jy 25 4t Baltimore, Md.



MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,

CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz,

11 inch Boxes, \$30, extra Knives for do. per sett \$4,
14 " " \$45, " " " " 5,
20 " " \$75, " " " " 8,

CORN SHELLERS—hand machines \$20, horse do. \$40. 1500 PLOUGHS, of various sizes and patterns, among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each.

CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each.

DRILL and SOWING MACHINES at 6, 20 a \$100 each.

FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox YOKES and BOWS, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES, &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c. English Corn Hoes	Liberal discount made to those who purchase to sell again.
Superior American made Cast-Steel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

jy 4

J. S. EASTMAN.

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work again, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work,—a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdning & Co's. fronting Grant and Ellicott-sts., in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf.

MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which will be ready for sale this fall.

EDWD. P. ROBERTS,

August 15.

Baltimore, Md.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	6 00	7 00
CORN, yellow	bushel.	97	1 00
White,	"	90	92
COTTON, Virginia,	pound	11	—
North Carolina,	"	—	—
Upland,	"	10	12
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	1 50
Do. do. baker's,	"	—	—
SuperHow. st. from stores	"	8 50	—
" " wagon price,	"	8 25	—
City Mills, super,	"	8 25	8 50
" extra	"	8 50	—
Susquehanna,	"	—	—
Rye,	"	—	—
Kiln-dried Meal, in hhd's.	hhd.	—	—
do. in bbl's.	bbl.	—	—
GRASS SEEDS, wholes. red Clover,	bushel.	6 50	7 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	75	1 00
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 00	scarce
Slaughtered,	"	—	—
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	30	35
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	—	3 50
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	82	85
Susquehanna,	"	—	none
TOBACCO, crop, common,	100 lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrapery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 65	1 75
Red, best	"	1 60	1 75
Maryland inferior	"	1 10	1 40
WHISKEY, 1st pf. in bbl's,	gallon.	39	40
" in hhd's,	"	—	37
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do,	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured, ..	pound.	13	13 1/2
Shoulders, .. do,	"	10 1/2	11
Middlings, .. do,	"	do	do
Assorted, country,	"	9	10 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old, ..	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	—	—
CHOP RYE,	"	—	1 75
EGGS,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna, ..	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,	"	4 75	—
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virgi. 1 1/2
Other Branches,	do	Bank of Virginia,
		Branch at Fredericksburg do
MARYLAND.		Petersburg,
Banks in Baltimore,	par	Norfolk,
Hagerstown,	1/2	Winchester,
Frederick,	do	Lynchburg,
Westminster,	do	Danville,
Farmers' Bank of Mary'd, do		Bank of the Valley, ..
Do. payable at Easton, ... 1		Branch at Romney, ... do
Salisbury, 2 per ct. dis.		Do. Charlestown, do
Cumberland,	3	Do. Leesburg, 1 1/2
Millington,	do	Wheeling Banks, ... 3 1/2
DISTRICT.		Ohio Banks, generally 6 1/2
Washington, } Banks, 1/2 p.c.		New Jersey Banks gen. 5
Georgetown, }		New York City, 1/2
Alexandria, }		New York State, 3 1/2
PENNSYLVANIA.		Massachusetts, 3 1/2
Philadelphia,	1 1/2	Connecticut, 3 1/2
Chambersburg,	1	New Hampshire, 3 1/2
Gettysburg,	do	Maine,
Pittsburg,	3 1/2	Rhode Island, 3 1/2
York,	1	North Carolina, 5
Other Pennsylvania Bks. 4		South Carolina, 8 1/2
Delaware [under \$5], 6		Georgia,
Do. [over \$5], 2		New Orleans, 12
Michigan Banks,	10	
Canadian do,	10	

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
a 29 EDWD. P. ROBERTS, Baltimore, Md.

MULBERRY TREES.

THE Queen Ann's County Silk Company have the following Trees for sale:

50,000 Morus Multicaulis or Chinese Mulberry
200,000 Morus Alba or Italian Mulberry
500,000 Morus Multicaulis Cuttings.

The company will sell the above trees at moderate prices and deliver them free of charge in Baltimore if required. It is thought by practical growers that they should be removed in the fall.

WM. HARPER, Treas'r.

Centreville, E. Shore, Md.

The 'Silk Culturist,' and Ruffin's 'Register,' will please publish the above three times, and mark the cost at bottom.

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TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the platen 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—it will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to

SANDS & NEILSON,

Office of "Farmer & Gardener,"

Jy 25 4t Corner of Charles & Market sts. Baltimore.

DURHAM & AYRSHIRE CATTLE.

The subscriber is authorised to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Magnum-bonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention.

EDWARD P. ROBERTS,

Editor Farmer and Gardener, Baltimore, Md.

sep 12

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CONTENTS OF THIS NUMBER.

A good price for a calf—letter on the value of agricultural publications—advice to save good seed—North Carolina coal—saving manure—work for October—harvesting Indian corn—notice of the late wheat crop—gathering and preserving potatoes—to make and preserve manures—notice of the Flora Cestrica, a new botanical work—horticultural exhibitions—the sugar beet in Ohio—culture and manufacture of silk—potatoes for horses—great crop of grapes—Peirce's seed corn—effect of ashes on Corn—seed for Cattle—Autumn—Silk Culture in America—on the manufacture of Poudrette—on making meadow hay—Letter to the Editor on spring wheat and silk culture, with remarks thereon—preserving pumpkins—advertisements—prices current.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 24.

BALTIMORE, MD. OCTOBER 10, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: OCTOBER 10, 1837.

LARGE BEETS.

We saw a few days since, a beet of the blood red variety, which was raised by Mr. Nathan Harrison of this city; it measured $26\frac{3}{4}$ inches around the girth, and weighed 14 lbs. An acre of land planted in rows two feet apart, the beets 1 foot asunder, is capable of raising, according to the weight of the above beet, 304,920 lbs. which is equal to 152 tons, or 5082 bushels of beets.

We also understand, that Gen. Chambers, of Kent county, Md., raised a sugar beet the present year, which weighed 18 lbs.: an acre of such beets would be equal to 392,040 lbs.—or, 196 tons—which in bushels would be 6534.

Mr. Pugh, of Ohio, has raised this year a sugar beet measuring 30 inches and weighing 22 pounds. An acre of such beets would be equal to 479,160 lbs., which is 239 tons, or 7986 bushels.

We do not wish to favor the opinion that either of these quantities could be raised from an acre; but here are three beets raised at three remote points, making an average of 18 pounds. Now suppose we assume an average of 5 pounds for each beet in an acre, and it will give us 54 tons, or 1815 bushels, which at a bushel a day for each cow, would carry twelve through five months of winter in good heart, and add two-thirds to the quantity of butter and milk they would yield.

WINTER CATTLE FEED.

The indifference which is manifested in every direction of our country towards procuring a supply of succulent food for milch cows during winter, is as cruel as it is impolitic. Without such food to be substituted for the herbage of pastures, it is as impossible that cows can be kept in good order as that they can be kept profitably to their milk upon dry food. Say what we may, the cow that keeps well to the pail during winter must

be supplied with such food as yields succulent matter bountifully;—for without she be so provided, it is utterly impossible that the milk-vessels can secrete milk, and for the very obvious reason that they must have something to extract it from. We have often seen a farmer who, with half a dozen cows to the pail, in winter, did not make more butter and cream than supplied his own table, whereas he ought to have been able, in addition to domestic consumption, to have sent at least 20 lbs. per week to market. If this were an isolated case it would not strike us with wonder; but from its almost universal prevalence, it is at once a subject of regret and mortification—regret that the claims of self-interest and humanity are so shamefully neglected—and mortification, that so little regard is paid to a branch of husbandry so intimately connected with human comfort.

With these introductory remarks let us say what are, in our opinion, the best feed for cattle in winter. It is *Mangel Wurtzel*, *Sugar beet*, *Rula бага*, and *Pumpkins*. Each of these may, by proper care, be provided in ample quantities, without materially interfering with the other farming operations. A single acre planted in *Mangel Wurzel*, or *Sugar beets*, in rows 2 feet apart, the plants 1 foot asunder, supposing that the beets average 3lbs. a piece, which is a very moderate average, is capable of yielding 1089 bushels, which at the rate of a bushel a day to each cow, would last 7 cows from the 1st of December till the first of May, and if they get but half a bushel a day each, the product of an acre would keep 14 cows in food during the time named. Beets every one know how to cultivate—to wit, that they are to be planted in good deeply ploughed rich loam, previously well manured; that when the beets come up that they be thinned, cleaned of weeds, and subsequently receive three hoeings and cleanings. This is not more trouble than ought to be devoted to either the culture of corn or potatoes; but how different is the result of product. Of all the articles named by us as proper for winter food, we would prefer the two varieties of beets; but we think that every judicious farmer will at once see the propriety of providing some of all, as there is nothing which so tends to keep cattle, in winter, to their appetites, as frequent changes of food; we have frequently seen them reject the same kind

of food one day that they had eaten with avidity the previous one, and after an interval of a few days feeding on something else, return with renewed vigor of appetite to that which only a few days before they had loathed.

The following table which we have prepared with care, will shew the yield of an acre of beets at the several averages of 3 lbs. 4 lbs. 5 lbs. 6 lbs. and 7 lbs. as the supposed weight of the beets, which averages we think low, as the highest is not one-third the weight of beets raised by Mr. Pugh of Ohio, the present season. It will also show the number of cows that an acre of ground will sustain for five months during winter, say from the 1st of December till the 1st of May, at which latter period, the grass will have been so far advanced as to afford a substitute for root-feeding:

Width of Rows.	Distance of plants apart.	No. of plants on an acre.	Average weight of Beets.	Product in pounds of an acre.	Product in tons.	Product in bushels.	No. of Cows which may be fed at a bush. a day, 5 mont.	No. of Cows which may be fed at 1 bush. a day, 5 mont.
2 feet	1 foot	21,780	3 lbs.	65,340	32	1,039	7	14
"	"	21,780	4 "	87,120	43	1,432	9	18
"	"	21,780	5 "	108,900	54	1,815	12	24
"	"	21,780	6 "	130,680	65	2,178	14	28
"	"	21,780	7 "	152,460	76	2,541	16	32

Now we would respectfully ask if these averages are not low enough, and if they be so, and we think they are, we would ask, if an acre of ground

could be put in any thing else that would yield so much solid and nutritious food as either Mangel Wurtzel or Sugar Beet? We unhesitatingly say so, and defy contradiction. And it is greatly in favor of these two varieties of beets, that horses as well as cattle feed upon them not only with avidity, but with decided advantage to health and condition. Why then should farmers hesitate with respect to the propriety of their culture.—Let them, if they choose not to go largely into their growth: begin on a small scale, say half an acre or a whole one, and we will risk the assertion, that they will never omit to raise them again, provided they do these roots justice in their culture; for there is no food which can be given to a cow that contributes so much towards increasing the quantity and quality of both milk and butter.

SILK IN FLORIDA.

A correspondent of the "*Silk Culturist*" informs the editor of that ably conducted paper, that Mr. Gould of St. Augustine, East Florida, has made some excellent silk the present season, from the foliage of *Morus Multicaulis*. The second crop from eggs of the one crop worm had already on the 20th of July, wound up and produced cocoons larger than the first.

Frost.—The *Lynchburg Virginian*, of the 28th ult., has the following paragraph, from which it would appear that the growing crops of *Tobacco*, have suffered much, a circumstance which every friend of the South will deeply regret, as to many parts of it, it is a most important staple:

"We had severe frosts on Saturday and Sunday nights last. The growing crop of Tobacco, in some neighborhoods from which we have heard, suffered considerably, particularly on the lower grounds."

The *Northampton (Mass.) Courier* has the following paragraph:

" We had some savage Frosts in this vicinity last week. They cut down vegetation like a "meal-axe."

By the subjoined, we are rejoiced to learn that "little" Delaware, that gallant member of the sisterhood, is out of the woods:

"*Buckwheat.*—Such of our readers as are interested in the condition of the crops, will be gratified to learn that the present prospect of an abundant crop of buckwheat, is very encouraging. In some parts of the country large quantities have been sown, and the season has been so favorable, that it yields most abundantly, and is entirely free from danger from frost."—*Delaware Gazette*.

Great Yield.—Last spring Mr. Benj. Leach, of Calvert County, Md. having ploughed up a wheat field in consequence of its unpromising appearance, sowed in it one bushel and a half of oats. A few days ago he caused the crop to be thrashed out, and found that the yield was one hundred and forty-nine bushels and a half.

[The above we copy from the New-York Star, though not original there, and we copy it to say that paragraphs written with so much looseness do infinite mischief by infusing unbelief into the minds of readers. A bushel and a half of oats will sow less than an acre of ground, and it must be obvious to all that that quantity of ground cannot yield a moiety of the quantity stated.—Why then tax credulity to such an illimitable extent?—*Ed. Farmer and Gardener.*]

Fine Prospect for Buckwheat Cakes.—We copy the following agreeable and authentic announcement from our cotemporary and neighbor, the Poughkeepsie Eagle of Saturday:

"It will doubtless be a gratification to all interested in the situation of the crops, to learn that the buckwheat crop in this county is the largest, by four fold or more, that has been raised in twenty years. Large quantities have been sown, and the season has been so favorable that it yields most abundantly, and is entirely free from danger from frost."

[As a lover of "*Buckwheat Cakes*," we can but express our hope that the frost may not yet nip those delightful anticipations of the Poughkeepsie Eagle.—*Ed. Farmer and Gardener.*]

FACTS RELATING TO THE SILK CULTURE.

EDITORIAL CORRESPONDENCE OF THE "SILK CULTURIST."

BLUE ROCK, Ohio, Aug. 17, 1837.

F. G. COMSTOCK, Esq.

DEAR SIR,

If I forget not, I promised you an account of my experiments in the silk business, this season, and a specimen of my silk. I am now prepared to fulfil this promise, but from the new regulations of the Post-master General, I prefer sending the specimen by the first private opportunity.

I have succeeded, even better than I expected. My fifteen hundred worms proved to be eight or ten thousand, all of which, except a few that the mice destroyed, spun good cocoons, although they were purposely exposed to the changes of an uncommonly variable season; the range of the thermometer, in the room in which they were kept, being from 52 to 87 degrees, Fahrenheit's scale.—The windows were closed during their whole existence, and necessity compelled me once or twice in their last stage, to feed them on leaves entirely dry, and yet not one dozen died of disease. The cocoons were of good size, and weight, three hundred good ones making a pound; and some of

them which I have reeled, yielded near forty per cent. of silk, of a fine, soft, and lustrous quality, equalling, when placed in the sun's rays, the brilliancy of polished gold. This result has convinced me of the entire practicability of the silken enterprise, and has also dissipated much of the scepticism of my neighbors, though some still persist, (in spite of experimental demonstration to the contrary,) in placing it on a par with the tobacco mania, which raged some few years since in this neighborhood, and which caused considerable loss among some who entered into it without a competent knowledge of its nature.

The result of this experiment leads me to the following conclusions:

1st. That no artificial heat is necessary in our climate, and

2dly. That the worm will feed as well, enjoy as good health, and produce as much, and as fine silk from the native leaf as from the Chinese or Italian, your correspondent Mr. A. David to the contrary notwithstanding.

With respect to the first of these propositions, I will observe: Our summers cannot be too cool, nor can our cocooneries be too much shaded, nor too well ventilated, for the health of the worms and the comfort of the feeder. This remark is certainly true, that more danger is to be apprehended from cold than from heat, and therefore I conclude that the advice which has often been urged is good, that laboratories should be built in the most shaded and airy situations. Keep the worms cool enough, give them room enough, air enough, and food enough, and nothing is to be feared.

With respect to the second position, the result of my experiments is told above. I need therefore, only remark, that with considerable difficulty I obtained a small supply of the Italian leaves which I mixed in equal proportions with the leaves of the Virginia mulberry, (or *Morus rubra* of the botanists,) and fed with them, and the result was that the Virginia leaves were eaten, not even excepting the stem, while the Italian was almost entirely rejected. Particular care was taken to have this experiment fully tried, and the result could not have arisen from any accidental or extraneous circumstances, but solely from the appetite of the worms. I also mixed with the leaves of the red, an equal weight of the leaves of the Black mulberry, and the former were eaten entirely, while the latter were entirely rejected.—Hence I conclude that the Black or common mulberry, of our northern forests, is worth but little to the silk culturist, while the red, or the mulberry of the latitudes of Virginia, is superior to the Italian, and almost equal to the Chinese tree. This tree, therefore, seems to be worthy the attention of the practical, as well as of the scientific culturist, and in order to elicit an investigation of its true value, I beg leave to make a few remarks upon it.

VIRGINIA MULBERRY.

This noble tree, (the *Morus rubra* of botanists) though found in great abundance in the middle and southern latitudes of the United States, is, as far as my observation and information extends, very seldom seen north of latitude 40; and the few I have seen above this parallel are inferior to those below it, both in the beauty, amount, and size of their foliage, and the magnitude of their

stalks. Between 39 and 40 degrees north, it is found in considerable abundance, and when surrounded by other forest trees, almost vies with the sugar-maple in height—but in open situations its stature is low, and its tendency is to throw out many branches. In its native State, it yields a large quantity of leaves of a bright glossy green, and smooth texture, many of which by actual trial, measure 12 inches in length and 9 in breadth, and weigh a quarter of a pound averdupoise a piece, and I am of opinion that these measures and weights can be much increased by judicious cultivation. This opinion is strengthened by some facts which have come to light in this neighborhood, and is confirmed by the opinions of several scientific and practical orchardists with whom I have conversed, and who have with me examined the tree.

The *Morus rubra* is a shy bearer, but can easily be propagated by cuttings, layers, and the other approved methods of propagating the Chinese tree. It has been doubted whether this tree will produce its kind from seed. Time will, however, determine this. I am disposed to favor a contrary opinion at present.

Should this species prove to be valuable, it will be a source of almost incalculable profit to the families of the south west. Already acclimated, no danger need be apprehended from the severity of our winters, already in the country, no time need be wasted, nor expense incurred, to introduce it. At all events, it will be valuable for hedging, as it grows with a rapidity and luxuriance far superior to the Italian, and but little, if any inferior to the Chinese tree. One gentleman of this neighbourhood intends planting several thousand next season for fences only.

Another species of mulberry which I have discovered, yields a beautiful leaf, 11 inches long, and 8 wide, but which weighs only half as much as the *rubra*. It is a very fine and brilliant leaf, with a small lobe or ear on each side, about midway between its widest place and its point, which gives it a peculiar appearance. I know of but one in the neighborhood. The worm is voraciously fond of it, and I am inclined to think it a valuable variety, especially for second crops of worms, as it is much tenderer than any other with which I am acquainted.

Yours, &c.

Respectfully,

S. R. JONES.

SAYBROOK, July 31, 1837.

F. G. COMSTOCK, Esq.

DEAR SIR,

I had some conversation with you last fall on the subject of mulberry trees and silk worms. I have this summer fed a few thousand of worms from the trimmings of White mulberry trees, that were planted in the spring of 1836; having never seen a worm or cocoon till those I raised myself. I send you a few for your opinion; 192 will weigh one pound; 205 of those that I have baked weigh one pound; my trees are from 4 to 6 feet high, with from three quarters to one-fourth inch buds.

Yours, respectfully,

WILLIAM WILLARD.

ANSWER BY THE EDITOR.—The cocoons are

very good ones, and the silk of an excellent quality. Some of the largest are dupions, [double cocoons,] which are of little value on account of the difficulty of reeling them.

BURLINGTON, New Jersey, 8 mo. 12th, 1837.

F. G. COMSTOCK,

RESPECTED FRIEND,

In reading the *Culturist*, I perceive doubts expressed by some of thy correspondents, as to whether the *Morus multicaulis*, will withstand the severe frosts of our climate, and a gentleman who very recently conversed with Judges Spencer and Buel of Albany, has just informed me that they rather favor the cultivation of the *Morus alba*, for a similar reason. Now it appears to me a matter of considerable importance to those who are about to engage in the silk culture, to have this point definitely settled. That the silk made from the *Morus multicaulis*, is at least equal in quality to that from the *Morus alba*, seems to be conceded by all who have made the comparison; and that the cost of making it from the former must be much less than from the latter, will be evident to every person who is familiar with the growth and foliage of the two species. The amount of foliage per acre will be much greater from the *multicaulis* than from the *alba*; and in consequence of the great difference in the size of the leaves, the expense of gathering food for a given number of worms will not be one third as great from the *multicaulis* as from the *alba*—consequently the profits from the culture must be much increased by using the former instead of the latter, provided they will live during our severe winters. Would it not then be well to invite information upon this subject, from correspondents, that all doubts may be speedily removed.

I saw a tree of the *Morus multicaulis* in March last, in the garden of a gentleman a few miles from this place, that had stood without any protection, the last three winters. The owner informed me that the first winter it was killed down nearly to the surface of the ground, and in the following spring sent up 4 or 5 shoots; since then it has not been injured, and in the summer of 1836 he fed 1000 worms from its foliage, that made large and fine cocoons, yielding nearly half a pound of reeled silk. I obtained about 1000 cuttings from its extensive branches, and they grow well.

Again, the Messrs. Cheney, in this vicinity, have about fifty trees that were raised from layers in 1836, and stood last winter, without protection, in Manchester, Connecticut, and received no injury from the frost. They were alive, and sent out their shoots, this spring, to the very extremity.

There are a few of us here, who have determined to go largely into the silk culture, and are perfectly satisfied that the *Morus multicaulis* is the proper species. We have nearly or quite 300,000 trees that are growing finely in a light sandy soil; many of them from three and a half to four feet high, at present, and sending out strong side branches.

Very respectfully, thy friend,

SAMUEL R. GUMMERE.

BY THE EDITOR.—Though we think favorably of the proposition contained in the foregoing let-

ter, and will thankfully receive and cheerfully publish facts and experiments relating to the acclimation of the *Morus multicaulis*, yet we do not consider it at all necessary to availing ourselves of this, the test of all kinds of the mulberry.

The experiments heretofore made have satisfied us that if the branches are destroyed by the severity of every winter, or to use a homely phrase, cut down every autumn to save their lives, the annual shoots upon an acre of land will yield more value in foliage than can be gathered from the same area covered with the White mulberry of any age whatever.

REMARKS BY THE EDITOR OF THE FARMER AND GARDENER.

Mr. Gideon B. Smith, the former editor of this paper, who has done more than any other man in America to introduce the culture of this species of Mulberry into our country, has demonstrated by actual experiments that all that is wanting to insure the life of the branches of it, is to cultivate it upon high, sandy soil of moderate fertility.—We have an excellent paper of his on the subject of the mulberry culture generally, and embracing this point in particular, which we shall take pleasure in laying before the public in our next.

[From the British Farmer's Magazine.]

MANUFACTURE OF BEET-ROOT SUGAR.

Introduction.

We will now proceed to notice the methods by which the greatest quantity, and the best quality of sugar can be obtained from beet root.

Sugar is a component part of this root, and that method of extricating it is to be preferred, which destroys the least portion of it in the course of the operation; for in the present state of the art, it is undeniable that a certain quantity is destroyed.

Most of the beet sugar manufacturers refine their own sugar; a method not approved of by the author. The art of refining is very complex, and difficult to manage, and requires a long and intimate acquaintance with practical chemistry. The agricultural manufacturer, therefore, should confine his attention to the making of raw sugar, and that of as good quality as possible, to sell to the refiner. It is only when the making of brown sugar is finished, that refining can begin. Consider, then, the time which must elapse before a manufacturer can realize any profit upon his business; for it will be remembered that the process of refining lasts for six or seven months, or the whole of the season of vegetation. From the moment therefore, that he sows his field, he is but then finishing the manufacture of the preceding crop into brown sugar. Then comes the refining, which does not terminate till six months after; so that he has to wait fourteen or fifteen months before he can begin to sell his sugar, and probably eighteen months before the whole is sold. Add to this a credit of three or four months usually given to the buyers, and it will form a total of twenty-two months, or thereabouts, before he can

expect to make his returns; whereas, if he sells the raw sugar, he will be able to begin to sell in seven or eight months after seed-time, and will have sold the whole in a year after the same seed-time.

Those manufacturers would be more at their ease, as to capital, who would first use a part of their own crops in their manufactory, and would afterwards treat with the little farmers for what they could spare of *their* produce. Thus, those who have not the means of forming an establishment of their own, will yet participate in some of the advantages of beet culture, the pulp of which they can re-purchase of the manufacturers.

I shall next proceed to describe the several operations connected with the manufacturing department, according to the order in which they follow each other.

CHAP. I.

Cleaning the Beet Roots.

When the roots are to be washed, it is not necessary that so much pains should be taken in scraping and cleaning them by hand; but when it is not intended to wash them, the cleaning ought to be particularly attended to. This work is mostly performed by women and children. They are furnished with a sharp knife, two or three inches broad and about ten inches long, with a suitable handle; and thus provided, they seat themselves near the heap of roots to be cleaned, and scrape each root separately, taking especial care not to leave any stones or dirt adhering to its surface. When a root is thought to be too large to enter the rasp properly, it should be cut in two or four pieces by the cleaner, according to its size. This should be done lengthways of the root.

The cleaning should take place in some spot convenient for the rasping mill and presses, and should be large enough to hold a quantity of roots sufficient to supply the manufactory for at least four or five days, and yet leave sufficient room for the cleaners to work in with comfort. After cleaning, the roots are thrown into a small open basket with ears, (like our turnip skeps.) They are then carried by the women to the rasp, where they leave the full baskets and bring back empty ones. Two women well used to the work will clean and carry to the rasp, three or three and a half tons of roots in twelve hours.

The cleaning, of course, diminishes, in some measure, the weight; perhaps about 6 or 7 per cent. on the gross weight of the roots.

CHAP. II.

Washing the Roots.

Washing is not indispensable where proper pains have been taken by the cleaners; neither can it be done in every situation, the quantity of water required being so considerable. A stream of water contiguous to a sugar manufactory would be an important advantage. In general, however, the washing is attended with many difficulties, particularly those arising from frost, which not unfrequently puts a stop to it entirely; and some are disposed to think that it may be dispensed with altogether, by spending a little more time and money about the previous cleaning, and especially by using a large rough brush, after the scraping knife; but this latter has not yet been tried.

It is important that the vulgar prejudice in favor

of washing, and even the idea that a large quantity of water is required in the manufactory of beet sugar, should be done away with. The manufacturers may rest assured that the want of water need not be an obstacle to an establishment in any case; and that the quantity absolutely necessary to carry it on is very small indeed.

CHAP. III.

Rasping the Roots.

When M. Achard first attempted to make sugar from the beet root, he begun by drying the roots by steam, then reducing them to paste by a mechanical process, and finally extracting the juice by pressure. It appears that the plan did not succeed, for he abandoned it. In fact, it is not that the sugar undergoes alteration from this drying or baking the roots, but that the pulp resulting from the drying process is so finely divided and slippery, as to render it extremely difficult to separate the juice from it. After many ineffectual attempts, M. Achard at last resorted to the method of rasping raw.

The texture of the beet root is so firm and compact, especially the better varieties, that mere pressure will extract but a small proportion of its juices, which appear to be enclosed in a number of little cells, and it is necessary to break these by rasping, in order to set the juices at liberty.

Other circumstances being equal, the best and most minutely divided roots will yield the greatest quantity of juice with the least pressure; and this constitutes the perfection of rasping.

1. *Rasping machines.*

There are rasping mills of various kinds, but that invented by M. Molard has been considered one of the best in use. The principle is that of a cast-iron cylinder, set round with jagged, saw-like blades, by means of which the roots are cut, torn, and squeezed, till they part with as much of their juice as is possible. It will rasp about $3\frac{1}{2}$ tons of beets in an hour. Price charged by M. Molard on delivery, 1000 francs, (l.41 13s. 4d.) The cylinder alone is worth half this sum, therefore an extra cylinder will add so much more to the cost of the machine.

2. *Operation of Rasping.*

Two laborers are required to work M. Molard's rasp, or sometimes it is worked by one man and two children.

Of all the operations connected with sugar-making, the rasping demands the greatest expedition. As little as possible should be rasped before hand, because the pulp speedily alters by exposure to the air. In fact, this alteration shows itself in a quarter of an hour, or, at most half an hour after rasping. This operation, therefore, should keep pace with that of the press, and not be much in advance of it.

The rasp should be washed at least once a day, and kept as free from dirt as possible, all particles of juice, or pulp, being but the elements of fermentation.

3. *Power for working a Rasp Mill.*

The rasp ought not to be worked by hands, on account of the expense. Horses or oxen are far cheaper, and more powerful agents, but better than these are wind or water powers. The last is decidedly the best, wherever a sufficient fall can be obtained. Of the two first mentioned, the

author gives the preference to oxen, as working equally well, and requiring far less costly keep than horses, the pulp from the mill being generally all that is required to keep them—a description of food which horses will not touch.

Mr. Dubrunfaut is inclined to prefer a wind power, as being a more practical and general agent than either water or steam, the former being rarely to be met with in level agricultural districts, and the latter very expensive, except in the immediate vicinity of coal. The society for the encouragement of national industry, aware of the importance of this power, offered a premium of 4000 francs (l.166) for the best mill, which premium was awarded to M. de Lamolere. It is intended to be placed in some one of the farm buildings. Cost only 2,400 francs, (l.100;) horses or oxen may be attached to it in the absence of wind. This provision is absolutely necessary in a beet root sugar manufactory. A pair of stones may also be added, by means of which the family may be supplied with meal and flour. The only inconvenience attending a wind power is its inequality. This has sometimes been complained of by the rasps.

CHAP. IV.

Extraction of the Sugar.

The extraction of sugar from the pulp is only to be performed by pressure; and the more powerful this is, the more juice from a given quantity of pulp. However, it is impossible, do what one will, to get it all out; for, even after the greatest pressure, the pulp will still continue moist.

In this operation, as in many others of a like nature, the last particles of matter become so difficult to obtain, as to render it more economical to neglect them altogether. Thus, in pressing the pulp of the beet root, the first juice runs out of itself from the bags, and continues to flow abundantly under the slightest efforts of the press, which the first always are; the quantity then decreases, perhaps in the inverse ratio of the square of the pressure. The remark may appear puerile, but it is highly important, as we shall soon see.

Suppose, for example, that with a known power, a certain quantity of juice is expressed in a given time from a mass of pulp. Suppose, in order to give the press the maximum of effect of which it is capable, that three men are employed for one hour, and that by this means 70 per cent. of syrup from the juice is obtained; it is probable enough, that by applying double the pressure after this, not more than 10 per cent. in addition will be obtained. It then becomes a question whether the quantity thus obtained be worth the cost of producing it.

Mr. Caffer employs a hydraulic press of the power of ten tons, on a surface of about 74 square inches. This was charged in the presence of the author, and from the pulp about 70 per cent. of juice was obtained at the first operation. The power was then doubled, but not more than 8 per cent. of juice was the result, which as before observed, hardly paid for the labor of producing it. However, on this point much depends on the nature of the power used, for it is obvious that wind, water, steam, or even horses and oxen, are less expensive than hand labor, now so commonly resorted to.

It may be imagined that an increase of power in this department would fully answer the required end; but, as has been said before, it is to the rasp that we must look for obtaining the greatest results from the press.

All roots do not give out the same quantity of juice from similar rasping and pressing. Those which are richest in sugar, give far less of it than those of a more watery formation. The operations of extraction being the same, it is only the different proportions of water which influence the quantity of juice afforded by the roots; and as the richness of the juice is ascertained in a manner sufficiently exact by the areometer, we may, by the help of this instrument, pretty nearly determine the quantity of roots which must be rasped to obtain a given body of juice.

Thus, with a good rasp and a powerful press, the following quantities of juice may be obtained proportionably to their areometrical densities:

A 5°	.	.	.	80 per cent.
A 6°	.	.	.	75 "
A 7°	.	.	.	70 "
A 8°	.	.	.	66 "
A 9°	.	.	.	63 "
A 10°	.	.	.	60 "

Supposing that the experiment be tried on twenty-five hectolitres (88 English cubic feet) of juice, weighing 6° by the areometer, it would be necessary to rasp and press $4\frac{1}{4}$ tons of roots; at 7°, $3\frac{1}{2}$ tons; at 8°, $3\frac{3}{4}$ tons; and so on in proportion.

It is important that the operation of pressing should be done quickly; for as little delay as possible should take place between the rasping and pressing; as also between these and the defecation.

§1. OF PRESSES.

A variety of presses have been mentioned as applicable to the manufacture of the beet root sugar, as the screw, the lever, the wedge, the cylinder, and the hydraulic. Of these the last is decidedly the best, as extracting at one operation all the juice that the pulp is capable of affording.

2. The accompaniments of a Press.

These accompaniments are the following:

1st. The bags which contain the pulp.

2d. Osier hurdles.

3d. A flat reservoir for preparing the bags in.

4th. A cistern for the juice, with pipes, pump, &c.

1. The Pulp Bags.

These bags should be made of strong materials; Russia canvas, for instance. The texture should not be too close, so as to injure the juice from escaping, or they will be in danger of bursting; neither should they be too coarse, or the pulp will squeeze through the meshes. This last inconvenience is, however, of less importance, and of less frequent occurrence than the other.

The size of the bags ought to be regulated by the power of the press; observing always that the surface pressed should never extend beyond the edges of the press itself.

As to the number of bags, that must, of course, depend on the number of working presses, their size, and the charge of pulp which each bag is made to hold. Thus, suppose a press of which the height of the pressing space is three feet

three inches, and that each bag shall be so filled, as, with the hurdle, to take up a thickness of 1 1-2 inch, it will then require 25 bags for each charge pressed. Add to these, five others for extra occasions, it will then form what is called a set (un jeu de sacs.) If the press is kept at work day and night, three sets will be required; but if only in the day, two sets will be sufficient. They ought to be changed every 12 hours. In some manufactories they use but one set, even if working day and night, but this is by no means desirable. Reckoning five months as the average length of the working season, one may fairly calculate on wearing up a set of bags in each season. The bags ought to be carefully washed in hot water in every twelve hours, in order to keep them as free from impurities as possible.

Hurdles.

The hurdles are made of osier, either peeled or unpeeled. They support the pile of bags under the press, and ought to be very strong and well put together, though not cumbrous. The dimensions will depend on those of the face of the press, at all events, they ought not to be larger. It is needless to describe the construction of these wicker hurdles, further than to say that it resembles that of common hampers in its texture. The number of the hurdles must correspond with that of the bags, plus one. It will be advisable to have several sets of them, that they may be renewed every twelve hours. The same care is necessary in washing them frequently, as in the case of the bags; this is done in a flat cistern, of which mention will be made by-and-by, and which also serves to arrange the bags in. For this purpose the cistern is half filled with cold water, into which a certain quantity of unslacked lime is thrown.—Each hurdle is then carefully passed through the liquor, afterwards well rubbed with a brush and then washed in clean water.

Cistern in which the Bags are prepared.

The cistern should be large enough to contain the juice which is separated during the above operation; it ought to be a few inches wider than the hurdles, and a foot or so longer than double the length of the same. Thus supposing the hurdles are 2 feet wide, by 2 1-2 feet long, the cistern should be of the following dimensions.

Breadth	2 1-2 feet
Length	6 1-2 "
Depth	1 "

There should be a cock in one corner of the cistern. This vessel ought to be of stone wood, lined with copper. Its situation in the building is between the rasp and the press; and one of its ends ought to be as near as possible to the cistern for receiving the pulp from the rasp.

For the convenience of working, it ought to be raised a few inches above the level of the floor. It should be surrounded by four stout moveable rails to hang the bags on, when they are arranged.

It is in this cistern that the hurdles are recommended to be washed with the cold lime water. It is needless to say, that after such washing, the dirty water should always be let off, and clean admitted. Cleanliness is indispensable in every stage.

Cistern for the Juice, Pipes, Pumps, &c.

The cistern serves to receive the juice as it comes from the press, and from thence it is

transferred immediately to the clarifying copper. It should be provided with suitable pipes, leading from the press into it, and with a pump to throw up its contents into the clarifying copper. This cistern, therefore, should be placed lower than the press; and, like the former should be of stout wood, lined with copper.—The bottom should be slightly inclined to enable the juice to draw to one side, at the lowest part of which is a hollow, in which the end of the pump is inserted, that it may be entirely emptied.

The dimensions depend on the mode of working. If only one defecation take place in 12 hours, the cistern need not be above half the cubical size of the defecating copper. But if the plan be to work on small charges, so as to make two or three defecations in twelve hours, then the cistern ought to be of equal capacity with the copper. The form is of no importance whatever. The pipes should be of copper, and the whole carefully and frequently washed with lime water, and afterwards well rinsed.

CHAP. V.

Defecation of the Juices.

The juice of the beet, as it first issues from the press, contains all the soluble matter of the root, an analysis of it given (as will appear hereafter,) a mixture of sugar, water, and divers foreign substances. If the juice contained nothing more than sugar in solution with water, it would be easy enough to separate them by the simple process of evaporation, the water goes off in steam, and leaves the sugar behind. What then hinders the extraction of sugar from beet-root juice by the same simple means? The answer is obvious. Because of the foreign matter which the juice brings with it, and which combined or mixed with the sugar, render the evaporation of the water difficult, and its crystallization extremely troublesome, if not impossible. The attention of the manufacturer must, therefore, be directed to the separation of these particles, and this is accomplished by the process known generally by the name of *defecation*. This is entirely a chemical operation. It consists in finding such agents as will precipitate, in a solid form, all the substances foreign to the sugar, whether in combination with it, or solidified without such combination. It is necessary also that these agents shall not be of a quality to alter the sugar when in contact with them, and that they may be afterwards carried away with the residuum. Whatever be the nature of the agent employed, it ought to be simple, and open to the comprehension of a common workman, and moreover, that it be not of too costly a description.

The only agents used in defecating are, sulphuric acid and lime. Great care is requisite in using them.

It has been elsewhere stated, that the re-action of the defecating agent ought to be assisted by heat; and it is on this account that coppers, or boilers, are resorted to. The following section describes this method of defecation.

§ 1. Boilers for Defecation.

These vessels ought to be circular, and should be formed of copper. Their dimensions vary with the magnitude of the works, from 228 gallons to 570 gallons; though some prefer a number of a smaller size, say 40 to 50 gallons. It is agreed on all hands, that the interval between the

raspage and the formation of syrup ought to be as short as possible, in order to produce the most profitable results. In fact, the friction occasioned by rasping is necessarily accompanied by a certain portion of heat, which tends to increase the action of the press. Now it is well known, how detrimental the action of heat is to all organic substances, dissolved or suspended in large watery masses. This action is easily discernible between the root and the pulp, and then again between this latter and the expressed juice. The change goes on increasing in proportion to the interval between the rasping and the defecation. The decomposition has often been such as entirely to prevent the formation and separation of the sugar. The copper then should be filled in the shortest possible space of time; but if large masses are acted upon, and, consequently, large coppers made use of, it is essential, in order to charge them rapidly, that a number of rasps and presses should be employed, proportioned to the required despatch of the operation. Thus, to charge a boiler of between 500 and 600 gallons in two hours, which would be a reasonable time enough, it would be necessary to rasp and press during this interval, about four tons of roots. Supposing that a rasp is used which in twelve hours will finish eight tons of roots; supposing also a hydraulic press which is capable of working of 880 lbs. of pulp in one hour, it will require, in order to obtain 570 gallons of juice in two hours three rasping mills and five presses; but if only this quantity is required to be obtained in 12 hours, and, consequently, that there is but one defecating boiler, the three rasps and five presses will only work two hours a day, and remain idle the rest of the time. This is bad. On the other hand, when it is attempted to fill a boiler of 570 gallons by means of only one rasp and one press, the inconvenience will occur of laying the juice before the process of defecation can be begun. Both these evils ought to be avoided.

A variety of reasons are given by M. Dubrunfaut, for preferring boilers of a medium size to those of large dimensions. He considers those of about 90 or 100 gallons as much more convenient than the larger sizes before enumerated. Of course two or more would be required according to the magnitude of the work. Two boilers of these dimensions would readily do the work of one of 570 gallons, and the first cost of them would not be more. As soon as one is brought to the grate of the other; in short, whilst the process of defecating is going on in the one, the other may be left to precipitate its extraneous substances.

A defecating boiler, intended to act by precipitation, ought to be equal in height to its diameter. A fifth of the size absolutely required to contain the juice should be allowed for boiling space: thus, a boiler which would hold 100 gallons, ought to be large enough to boil one hundred and twenty gallons in. The boiler ought to be mounted to such height as to allow of the liquor running off clear, by an easy slope into the evaporating boiler. The temperature should never exceed 80° of Reaumur (212° of Fahrenheit.) Thus, admitting that the boiler is 36 inches in height, and the same in diameter, it should have a grate of about the following proportions:—

Length	23 inches.
Breadth	15 "

This grate is of cast iron and composed of 10 bars. The bottom of the boiler is placed about 15 inches above the grate, round which is a flue to enable the flame to circulate to the height of the charge. This flue, at its opening into the chimney may form, in section, a parallelogram of 140 square inches. A boiler on this construction presents to the fire a surface of 413 square feet, and will boil its contents in about three quarters of an hour, with the consumption of 24 lbs. of coal. If wood is burned there must be double the quantity allowed.

§. 5. Appendages to a Defecating Boiler.

They are the following:—

1. A thermometer and an areometer.
2. Scales and weights to weigh the lime.
3. A bin for lime, and wooden pails or buckets.
4. A measure either of lead or copper, for sulphuric acid.
5. A wooden instrument to stir up the liquor in the boiler.
6. A plated spoon, to observe the juice with, and an experiment saucer.
7. A skimmer.
8. A filter and funnel.

Areometer and Thermometer.

Beaume's areometer is generally allowed to be the best; it should be provided with a tin case, having a wooden handle. The liquor about to be weighed is drawn up in this tin case which is held by the handle. It is important that the juice should be examined always at the same temperature. It should be taken as it comes from the press, and plunged, by means of the tin case, in water from a well or pump, so as to reduce it to a temperature of 10° of Reaumur (55° of Fahrenheit.) Then insert the areometer; and if all subsequent trials are made with the same precaution, the comparative results will not fail to be correct. In this state the juice varies from 5° to 10° (areometriques) of Benum. If weighed when boiling, a difference will be found of 4° more or less, because then, the heat expanding the liquid, diminishes the specific gravity of it.

The areometer will also be found useful in the evaporation of the juice, to estimate the precise time favorable to clarification. Being of glass and consequently very liable to be broken in the hands of common workmen, it will be necessary to have a number of them at hand.

The thermometer is used in defecation to judge of the state of the temperature, and thence to ascertain the proper time for adding the clarifying agents. The most convenient place to hang it is near the boiler, and it ought to be immersed in the liquor during nearly all the time of the clarification.

Scales and Weights to weigh the lime.

These, it is unnecessary to say more of, than they should be capable of weighing from 5 lbs. to 50 lbs.

(TO BE CONTINUED.)

A smart Yankee—A man on the farm of Mr. T. H. Darling, in Roxbury, Mass. dug in one day last week one hundred bushels of potatoes, assorted them, and put them into barrels, and milked two cows!

IMPORTED SEEDS.

PHILADELPHIA, No. 200 South Ninth-st. }
Aug. 12, 1837. }

SIR,

My friend near Edinburgh has supported my seed project with great zeal and judgment. I have received from him some of Hickling's prolific Wheat, Chevalier Barley and Perennial Rye Grass, of the crop of 1836.

He writes under date of June 3d, "All these are of crop 1836, and fresh thrashed from the straw, and, except a little mouse dirt, which will do no ill, are clear of weeds. Indeed, I am satisfied that the grain is sound and is to vegetate well.—In consequence of the lateness of the harvest season here, it is extremely difficult to procure grain in a state of sufficient dryness for the voyage to you. What I have sent on this occasion will afford your friends an opportunity of making an experiment on sound seed, of one year's age, if it answers, and more is wanted; this will prove the surest way to prevent the grain becoming injured from heating on the passage; still the order should be sent early, that the proper selections may be advantageously made. I found considerable difficulty in getting this kind of wheat. Permit me to say, I am desirous to be informed of the result, whatever may be the success, &c.

Of this small importation, I have set apart for you one bushel of each kind of the seed, as stated in the annexed bill: the expenses on the transaction, including the exchange, is 91.40 per cent. although the United States charges no import duty. In fixing the price, I have doubled the prime cost, which leaves 8.60 per cent. to cover trouble and the expenses that will attend it here.

The Wheat will reach you in season for this year's sowing. The Barley is two rowed, and for Spring sowing, it should be put on clean mellow land; this kind of barley is richer and of more value than the four-rowed, whether it is used for malting or pot barley. The Perennial Rye grass should be sown where it is to remain a number of years; but please to observe it is the common practice in Britain to sow it along with clover; it is there as horse feed, what Timothy is with us. It is with you, by careful and patient experiment, to ascertain its value to the American farmer and grazier; as a pasture it cannot but be useful; domestic animals, like ourselves, are fond of variety, and they are benefited by change of food.—This grass will prove important to our pasture, on account of its early spring and late fall vegetation, and having the property of maintaining itself in the ground for many years. Some of this grass you may with propriety sow as soon as you receive it amongst the clover sown in 1837; and the remainder should be sown along with the clover and Timothy in 1838. It is desirable to learn what season will suit best for putting it in the ground. I will here take the liberty of submitting to your consideration a practice that may be said is universal in the northern part of Britain in the sowing of wheat; there it was resorted to as a means to prevent the smut in wheat, and it has perfectly answered that purpose. All Seed Wheat is treated after one or other of the following modes:

A brine is prepared by putting common salt

into water until the brine has strength sufficient to float an egg. The wheat by some farmers is put into this pickle, and the light grains are skimmed off and thrown aside; other farmers put it on the barn floor, and sprinkle the brine over it with a bunch of straw or a broom, turning the wheat backward and forward until every grain of the wheat is wetted; this is the most expeditious way, but it is considered somewhat slovenly; the grain is then dried by sifting slacked lime over it, and turning over the mass; it is then sown in the usual way. There is always an anxiety to have all that has been 'pickled' sown on the same day; another process is to employ chamber ley in place of the salt pickle, and the manner of using it is the same as that of the salt brine. I presume that this last material will be most efficacious when it has age sufficient to form volatile alkali. Permit me to recommend the process to your attention. I advise making the experiment; be assured it can do no ill.

In cases where the sowing of wheat has been delayed until late in the season, whether from some necessity, or for the purpose of escaping the depredations of the fly, a portion or all the manure should be spread over the surface of the land after the wheat has been sown: this portion of the manure becomes the nurser and protector of the young plants, whose roots are at that time very tender, and so short that they are acted on by the frost before they have had time to reach the ploughed in manure; and consequently this ploughed in manure is of no service to them, and they perish from hunger and cold. I am not certain that it is now your wish to get this seed, and for that reason request you to favor me with your instructions by the return mail, if possible, so that I may have an opportunity of otherwise disposing of it this season. I have to request of you to remit the amount.

I think you will be pleased with the superior quality of the Barley and Rye Grass. The Wheat is excellent as respects size and form, but its skin is not fine; it bears evident marks of having grown in a wet season. I solicit for the experiment your careful attention; the result may not prove successful under some circumstances, while in other cases it may do well; at all events it merits a careful trial.

Very respectfully,

I am your Most Obedient,

JAMES RONALDSON.

As a guide to those who may feel disposed to avail themselves of the patriotic effort of Mr. Ronaldson, we annex the following letter to ourself, by which it will be perceived that Mr. Ronaldson has already disposed of all the wheat imported by him, but has still on hand a small portion of Chevalier Barley and Perennial Rye Grass.

Phila. Oct. 3rd, 1837.

Sir:—Yours of the 27th was received yesterday; I can supply you with half a bushel of wheat and half a bushel of rye grass as per statement, this finishes my wheat; there remains a few bushels of barley and rye grass.

I shall expect your directions by the return mail.

Yours, respectfully,

JAMES RONALDSON.

Mr. E. P. ROBERTS.

BREAKING UP GRASS LANDS.

The Code of Agriculture has some general remarks on this subject, which we insert as the experience of the best agriculturists.

If the land be wet, it is advisable to drain it completely, previous to its being broken up.

Land that has been long in pasture, does not require dung during the first course of crops that is taken after being broken up, but the application of calcareous manure is always in such cases expedient. Sometimes lime is spread on the ground before it is ploughed; at other times, marl and chalk have been used for the same purpose, with great advantage.—The land thence derives additional strength and vigor; the succeeding crops are much improved; the soil is commonly so softened in its texture, that it may be ploughed with half the strength that would otherwise be necessary, and whenever it is restored to grass the herbage is abundant.

Wherever the soil is not too shallow, nor of a friable nature, or when the turf cannot soon be rolled, if land is to be broken up from old pasture, paring and burning is the proper system to be adopted. In this way good tilth is speedily procured; the damage that might otherwise be sustained by the grub, the wire worm and other insects, is prevented, while the soil receives a stimulus, which ensures an abundant crop.

When paring and burning, from any circumstances, cannot take place, the land may be trenched, or double-ploughed. This is effected by means of two ploughs, following each other, the first plough takes off a thin surface of about three inches, and the second going deeper in the same place, covering the surface sod with fine mould; both furrows not exceeding the thickness of the vegetable mould, or other good soil.

If the land is ploughed with one furrow, the operation ought to be performed before winter, that it may receive the benefit of the succeeding frosts, by which the success of the future operations will not only be promoted, but most of the insects lodged in the soil will be destroyed.

When one furrow alone is taken, the best size is four inches and a half deep, by eight or nine wide. The strain on horses, in ploughing clay land, is mostly from the depth.

The rotation of crops to be adopted, when grass lands are broken up, must partly depend upon the soil, and partly on the manner in which it is prepared for cultivation. As a general principle, however, it may be laid down, that unless by the course of cropping to be pursued, the bad grasses and other plants indigenous in the soil, are extirpated, they will, when the land is again laid down to grass, increase and prevail with more rapidity and effect, than the seeds chosen by the farmer; and the consequence must be, a heavy disappointment in the future crops of grass, perhaps solely, or at least principally attributable, to a previously defective management.

The Northampton Silk Company, incorporated with a capital of \$150,000, promises to do much for the advancement of the Silk business, as well as for the prosperity of this town. We are glad to learn that the Factory building, one hundred feet long and four stories high, near the Oil Mill, has been recommenced, and will be pushed ahead with great rapidity. It is intended to have

the walls up this fall and perhaps occupied with silk machinery during the approaching winter. Mr. Samuel Whitmarsh surely is worthy of praise for the untiring perseverance he has exhibited, in pushing forward this important enterprise, in opposition to the obstacles which have constantly beset him. Not merely have the unpropitious times discouraged, but the incessant prediction of croakers, that his plans would not succeed, have constantly assailed Mr. Whitmarsh. All new enterprises meet with the same hindrances, and if energetic men stopped to heed all the wise admonitions of the sceptical, what would be accomplished? Mr. Thomas Whitmarsh and brother have purchased the old carriage shop near South street bridge, and are preparing to fill it with machinery for weaving ribbons and sewing silk. A steam engine will propel the machinery, and we predict, one year hence, more spindles and silk looms will be in operation in this town, than in any other two places in the Union.—*Northampton Courier.*

The Nantucket Silk Men—New England Silk Manufacture—The display of silks at the Boston Fair is truly magnificent, and reflecting the highest honor on the industry and enterprise of our countrymen in this culture and manufacture—besides numerous specimens of sewing silk and twist of various colors and fineness, there are from the Nantucket Company watered and plain drab silk pantaloons, handkerchiefs with printed borders, with high colored figures, and printed silk for gowns. Truly this last is a triumph for the whalers, who can alike wield the sturdy harpoon on the mountain billows against the monster of the deep—or turn their hand to the most delicate process of domestic manufacture—who can with like facility enroll upon the windlass the ponderous cable or wind upon the fragile spool the gossamer and almost imperceptible filaments of the silken cocoon. The Essex Co. presented some beautifully printed patterns of handkerchiefs on India silks. Finest, softest, and highest finished silk cloth and handkerchiefs, from Adam Brooks, of South Scituate, and bleached and printed by Halliday, of Lynn, equal to the best specimens of the French and Swiss. Sewing silk of various colors, from J. Stevens of Newburyport. A basket of cocoons from J. S. Sullivan, of Quincy, Mass. fed on the Germantown mulberry.—*N. Y. Star.*

Horticultural despatch—There is at the seed store of Mr. Thorburn, in John street, a turnip, raised (by N. Smith Prentiss, esq. near Princeton) the present autumn from seed of *this summer's* saving—it is of the red top variety, called the *strap leaved*, and from its quick growth must be a desideratum. The seed was procured of Mr. T. who first introduced it to our New York agriculturists; it will prove itself one of our finest table varieties. The seed was sown the early part of August.—*N. Y. Star.*

CONTENTS OF THIS NUMBER.

Large Beets—winter cattle feed; silk in Florida—Frosts—Ruckwheat in Delaware—notice of a crop of oats; fine prospect for buckwheat cakes—facts relating to the silk culture—manufacture of beet root sugar—imported seeds—breaking up grass lands—silk in Northampton—do in Nantucket—horticultural despatch—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected from D.O.

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	—
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel.	96	98
White,.....	"	90	92
COTTON, Virginia,.....	pound	11	—
North Carolina,.....	"	—	—
Upland,.....	"	10	12
Louisiana — Alabama.....	"	—	—
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"	—	—
SuperHow. st. from stores	"	8 50	—
" wagon price,	"	8 25	—
City Mills, super.....	"	8 25	8 50
" extra.....	"	8 50	—
Susquehanna,.....	"	—	—
Rye,.....	"	—	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, wholes. red Clover,	bushel.	6 50	7 50
Kentucky blue.....	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	—	3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 07
HEMP, country, dew rotted,.....	pound.	6	8
" water rotted,.....	"	7	—
HOGS, on the hoof,.....	100lb.	7 00	—
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	33	32
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	—	3 50
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	82	85
Susquehanna,.....	"	—	none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red, ..	"	8 00	10 00
" good yellow, ..	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf, ..	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 80	1 85
Red, best.....	"	1 70	1 75
Maryland inferior	"	1 10	1 40
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hhds.....	"	—	37
" wagon price, ..	bbls	—	30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	—
To Wheeling, ..	"	1 75	—
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 8 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,..... do.....	"	10½	10½
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"	—	—
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	—	—
CHOP RYE,	"	—	1 75
EGGS,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,.....	"	6 50	—
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	—
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,.....	do	14½	Farmers Bank of Virg. 14½
Other Branches,.....	do	do	Bank of Virginia,..... do
MARYLAND.			Branch at Fredericksburg do
Banks in Baltimore,.....	par	do	Petersburg,..... ½
Hagerstown,.....	do	do	Norfolk,..... 1½
Frederick,.....	do	do	Winchester,..... ½
Westminster,.....	do	do	Lynchburg,..... 1½
Farmers' Bank of Mary'd, do	do	do	Danville,..... do
Do. payable at Easton,....	1	do	Bank of the Valley, .. ½
Salisbury,..... 2 per ct. dis.	do	do	Branch at Romney, .. do
Cumberland,..... 3	do	do	Do. Charlestown, .. do
Millington,..... do	do	do	Do. Leesburg, 1½
DISTRICT.			Wheeling Banks, a3
Washington,	do	do	Ohio Banks, generally 6a7
Georgetown,	do	do	New Jersey Banks gen. 5
Alexandria,	do	do	New York City, 4
PENNSYLVANIA.			New York State, 3a4
Philadelphia,.....	do	do	Massachusetts, 3a3½
Chambersburg,.....	1	do	Connecticut, 3a3½
Gettysburg,.....	do	do	New Hampshire, ... 3a3½
Pittsburg,..... 3½	do	do	Maine, 3a3½
York,..... 1	do	do	Rhode Island, 3a3½
Other Pennsylvania Bks. 4	do	do	North Carolina, 5
Delaware [under \$5].... 6	do	do	South Carolina, 8a10
Do. [over \$5]..... 2	do	do	Georgia, do
Michigan Banks,..... 10	do	do	New Orleans, 12
Canadian do..... 10	do	do	

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & Co.,
Light, near Pratt-street, Balt.

Sept. 10.

3t.

BAKFWELL RAMS.

For sale 6 Bakewell Rams, one of which was imported. The prices are as follows, viz: the imported Ram \$150, No. 1. of the native bred, \$100—No. 2, \$75; No. 3, \$50; Nos. 4 and 5, 35 dollars each. The five latter rams are one year old, in fine condition, and beautiful specimens of their peculiar and much admired long-wooled breed. As a proof of their superior quality it may be well to state that two brothers of the latter five were sold at the great Whitaker sale recently held in Philadelphia, for \$100 each, and a third one since for the same money at private sale. Applications to be addressed in writing to

JOHN BARNEY,
Philadelphia.

Oct. 10.

3t.

DURHAM & AYRSHIRE CATTLE.

The subscriber is authorized to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Magnum-bonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts of milk per day when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention. EDWARD P. ROBERTS,
Editor Farmer and Gardener, Baltimore, Md.
sep 12 4t

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the plate 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to SANDS & NEILSON,
Office of "Farmer & Gardener,"
jy 25 4t Corner of Charles & Market sts. Baltimore.

Printed by Sands & Neilson, N. E. corner of
Charles and Market streets.

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 25.

BALTIMORE, MD. OCTOBER 17, 1837.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: OCTOBER 17, 1837.

We had a most heavy frost, and ice the fourth of an inch thick at our residence 2 miles east of Baltimore, on Saturday morning, the 14th instant. Our *Dahlia*s, and there was a most splendid bloom out, were frozen completely stiff. If this frost shall prove to have been general, we fear that much of the late corn will be considerably injured.

A GOOD SPIRIT.

We publish to-day a highly interesting letter from the Corresponding Secretary of the New Castle County Agricultural Society of Delaware. We rejoice to find from it that a spirit of laudable enterprise has been awakened among the agriculturists of that generous and patriotic state; and we trust it will be impelled forward until it shall have infused itself into the bosom of every man who cherishes veneration for the noble calling of the husbandman.

We cannot close this article without returning our thanks to Dr. Thompson, for his acceptable present of a loaf of bread made from *Spring Wheat*, raised by that enterprising and intelligent farmer, Major *Reybold*; and we will say this much for the Delaware loaf, that, with a single exception, we have never eaten of such excellent bread. It was all that bread ought to be, all that good flour and human art could make it.

We shall be pleased at all times to receive communications from Dr. T. in his official, or individual capacity, as also from any of his patriotic co-laborers in the great cause of agriculture; and we need not say, that it will at all times afford us heartfelt pleasure to contribute our feeble mite towards the promotion of the objects these gentlemen have so laudably associated together to further.

We copy with much pleasure the following article from the *Princess Anne* (E. S.) *Herald*, of

the 3d inst., and we trust that the presence of Mr. Gay, on our Eastern peninsula, may have the effect of arousing its intelligent inhabitants to a sense of the importance of the Silk Culture. From his intimate acquaintance with the business and general knowledge in every department connected with the culture of the mulberry and manufacture of silk, they may obtain valuable information, the effect of which, we trust, will be to induce them to enter spiritedly into the business, both as individuals and companies. We are certain there is no branch of human industry with which we are acquainted, so eminently adapted by the beauty of its employment, and the largeness of its profits, to allure men to it; and now, as the farmer may feed the *first year* from the *Morus Multicaulis*, that great obstacle to the spread of the Silk Culture has been removed; for no one need now wait for several years to reap the fruits of his industry. Should not this fact stimulate all to go to work at once? We say it should, and we sincerely hope that a new era is about to dawn upon the interesting portion of our State alluded to in the article below.

In all candor we affirm, that if the people of the Eastern Shore so will it, they may, in twenty years, by adding the Silk Culture to their other branches of husbandry, increase their exports three millions of dollars, impart an appreciated value of two hundred per cent. to their lands, and while they are doing these things, they will be increasing their means of giving employment to thousands of widows and their orphan children; for it is one of the advantages of the culture, that *children* from seven years of age and upwards, are just as competent to perform the labor of gathering leaves and feeding worms as grown persons.

THE SILK CULTURE.

We take great pleasure in stating to our friends in the county, and to the people on the Shore generally, that a gentleman is now in our Village, from whom all the necessary information touching the rearing of the mulberry and the culture of silk may be obtained. We hope the enterprising of our citizens will avail themselves of his experience and engage his services in the erection of an establishment for the manufacture of the article.

Mr. GAY, the gentleman alluded to, states the object of his visit to our shore to be the establish-

ment of Silk Companies along the Peninsula. His efforts have, so far, been attended with the utmost success. Very recently he has been instrumental in the erection of several companies on the shore, and a number of others in the State of Delaware. At Cambridge, in Dorchester; and at Salisbury in our own county, we are happy to learn, companies have been formed: and we may add, we have no doubt but that one will be formed at Princess Anne.

The mode of propagating the Mulberry—especially the *Morus Multicaulis*,—Feeding the silk worms—Furnishing a set of hurdles for that purpose—Supplying filatures for winding the raw silk from the cocoons, with practical instructions therefor, and instructing a set of hands in the branches as above—may be obtained at a very small expense.

This will comprise the first stages of the culture. Another set of Machinery—the cost of which will likewise be small, will be necessary to manufacture the raw material into sewing silk. The latter machinery, however, may be dispensed with at the pleasure of the company, a ready market being at all times found for the raw material. It will command, at all times, a price that will net to the growers a clear profit of 2 to \$4 on every pound they may send to market. And if, after sufficient experience, the company should find the business a profitable one, as no doubt it would, then the additional machinery to which we have alluded as necessary to convert the raw material into sewing silk might be obtained.

It has been estimated, by the best writers upon this subject, that the profits arising to the growers range between five and seven dollars in every pound of sewing silk they manufacture. And, as to the quality of the land necessary to the successful rearing and cultivation of the Mulberry, it has been clearly proved, that, for this purpose, the poorest sandy soil is well adapted. One acre of such land will produce from 1,500 to 2,000 trees, which for three successive years, will average, at least, one sixteenth of a pound of silk per tree. And for the 4 years thereafter the product of each tree will be the eighth of a pound. This is a very moderate estimate.

Hence it will be seen at a single glance that the business, however limited, or however great the extent to which it may be carried, cannot be otherwise than profitable.

But besides the pecuniary advantages which must necessarily flow from the introduction of the culture of silk amongst us, there are other considerations attached to the subject which cannot but arrest the attention of the philanthropic, as well as the enterprising citizen. When we look around us and behold a class of beings, whose condition beggars description, seeking a precarious subsistence from the scanty produce of our forests—wearing out the vigor of their lives in indolence and poverty—for want of em-

ployment, we are led to view with feelings of pleasure, the adoption of any system which promises to rescue them from their degraded position, by the exercise of honest industry. We allude to the numberless women and children—the victims of poverty—who throng the outskirts of our woods and forests—and to whose hand such employment would come most welcome. It has been ascertained that the culture of silk can be prosecuted by women and small children, who are incapacitated for labor of a more arduous nature. Such aid, alone, indeed, is best calculated to carry on the business successfully, and therefore those who engage in the culture may do so without interrupting the regular routine of agricultural duties.

It is an undeniable fact that that spirit of energy which is so essential to individual, as well as national, prosperity, is now scarcely known amongst us. An almost universal apathy has succeeded it, which rests like an incubus upon us, and will ever prevent, if not shaken off, a rapid rise in the scale of prosperity. Something *must* be done, and the sooner the better. Not only for the benefit of that class of which we have just spoken, but to prevent the emigration of another and a more valuable portion of the community. The tide of emigration from our county, and indeed from our shore, is flowing on rapidly. This must be checked, or, ere long, active industry will not find a home amongst us. The bone and sinew of our land are daily departing from us, to seek habitations in the 'far west,' where greater inducements are held forth—where industry is better rewarded, and where enterprise will ever meet with success. If, then, we can strike upon some scheme, whereby the thrifty and industrious may be retained, and the indigent employed, the advantages will be incalculable. We know of none more likely to succeed in the accomplishment of this purpose, than the establishment of silk companies along the Peninsula.—Wherever they have been erected, they have been attended with the most auspicious results, and their utility is no longer questioned. There is one at Centreville, in Queen Anne's, which has been established only about 12 months, and we are credibly informed the most beneficial results have attended its operations. There is another at Easton, in Talbot, which is also, we learn, in a flourishing condition. We commend the praiseworthy example of the enterprising citizens of Centreville, Easton, Cambridge and Salisbury, to the attention of our own citizens and those of Snow Hill.

The *Morus Multicaulis* possesses many advantages over the White Mulberry, tho' both species are used in the feeding of worms. The former can be propagated and a crop of silk from them grown the same season. The latter requires a greater length of time to arrive at a state suitable for feeding. We would therefore recommend the rearing of the *Morus Multicaulis* exclusively.

THE HOLLOW HORN.

A writer in the "Farmer's Cabinet," who signs himself "A Montgomery County Farmer," gives the following as a remedy for the disease in cattle commonly called "hollow horn":—

About 9 years since, my cattle were afflicted with the hollow horn, and it afflicted me very

sorely, I assure you, as several of them died; but I *bored* away. One morning while engaged in this business, I was accosted by an intelligent farmer, recently from England—he was surprised at the operation. I told him that it was the only way of saving my cattle—that several had already died of the hollow horn, and the others assuredly would, unless *bored*. He absolutely laughed at me. I felt provoked, but was still willing to hear him, as I might get an original idea. He stated that the "hollow horn did not exist in England. That it was not a disease of the horns, that hornless cattle had all the symptoms, &c. He advised me to desist boring—After much persuasion I did so; and he recommended me to give each of my cows a half a peck of potatoes twice a week, for three or four weeks in succession, and then occasionally, as circumstances might require—and by all means to keep my cattle well sheltered, and in good condition. I obeyed his directions—and the consequence is, that my cattle have not been troubled with the hollow horn since that time. I have, therefore, come to the conclusion, that cattle well housed in bad weather, and kept in good heart, at all seasons, and properly attended to, stand in no danger of hollow horn.

[The only efficacy in the potatoes consists in giving heart and ability to the animal to withstand the rigors of winter, and therefore a most excellent preventive remedy, and would be all the better if repeated daily. If farmers would take the precaution to pour a tea-spoonful of spirits of turpentine in the little cup or cavity in the back of the head, once in a fortnight during the latter part of winter and early spring, there would be no cases of hollow horn.—*Ed. Farmer & Gardener.*]

GOOD CROP AND GREAT EXPEDITION.—Dr. Benj. Butler of this village, on Saturday last harvested 26 loads of hay, estimated at 1200 per load, making 28,090 lbs. timothy and clover, from 4 acres and 20 rods, as measured by pacing, artificial meadow on corn hill. This hay was raked with a horse rake by an academic student of 15 years and a boy of 12 years to ride, and carted and housed by 7 men with two horse teams, after one o'clock in the afternoon, completely filling, with 7 loads previously carried, the hay and scaffolds of a 30 by 40 feet barn. We know of some, and we presume there is 1000 acres equally loaded within the town.—*Oxford Republican.*

AGRICULTURAL ITEMS FROM VIRGINIA.—Mr. R. E. Lee has raised on a farm of 60 acres near Warrentown, Va. an average of over 60 bushels of oats to the acre, which will bring about \$20 an acre. Mr. Lee has ploughed deep and used plaster and clover with a liberal hand and great effect. The Warrenton Times has received a head of Timothy, which measured 12½ inches. A mammoth stalk of corn has been grown in Fauquier county by Mr. Glascock, which bears ten sound and perfect ears of corn, the highest of which is eleven feet from the ground. Roots have branched out from the three first joints of the stalk, and what is most singular there is a sound and perfect ear as low down on the stalk as the joint.—The stalk is very large and tall; and the ears are well filled.

WILMINGTON, Oct. 6th, 1837.

To the Editor of the Farmer and Gardener:

Sir—Knowing the interest you take in every thing that appertains to the agricultural advancement and prosperity of our country, and how acceptable facts and practical experiments are to the conductors of the "Farmer and Gardener," I take the liberty of sending you, through the politeness of capt. Frazier, agent of the Wilmington and Susquehanna rail road, a *loaf of bread* made from the Italian spring wheat raised on the farm of my enterprising friend Philip Reybold, esq. of this county, the present season, it being a part of the same bread produced at the agricultural dinner here on the 4th inst. Mr. Reybold, who is known to many of your readers as the president of our agricultural society, and one of the most prominent farmers in Delaware, stated to the members at the late quarterly meeting of the society held at Newark in this state, his experience and confidence in the success of the Italian Spring Wheat so highly spoken of lately to the North, and commented on in different publications. From eight bushels of the seed procured by him from Rome, New York, he had raised he said about one hundred and twenty bushels, and had heard, and believed from its quality, that it would make *good bread*—Some of our old and respectable farmers present expressed doubts about *spring-wheat*, the same grain they thought had been tried in this state many years ago, and that the flour from it was considered little better than rye flour—that it was dark and the bread heavy. It occurred to us to suggest a trial of the bread made from this wheat, and that a lot of it might be sent to a disinterested committee of two members of the society:—the proposition was immediately acceded to by Mr. Reybold, and the wheat was liberally furnished by him. It was taken to mill by one of the committee, unmixed with any other wheat—ground and bolted in his presence, and baked by his cook in the usual manner. The result of the experiment you will see and judge for yourself. At the agricultural dinner, I need scarcely add, that it gave universal satisfaction to the large and intelligent company present (among whom were several celebrated millers heretofore rather sceptical, but who were convinced as well as gratified as soon as they *saw* and *eat* of the bread made from wheat sown on the 17th of last March, when the disastrous state of the winter grain was well ascertained to be general throughout the country.) The good example of Maj. Reybold will be extensively followed in Delaware. A number of us have already ordered a large supply for seeding the ensuing spring. Enclosed I send you some grains just received by me in a letter from Mr. J. Hathaway, Rome, New York, of this year's growth, and Major Reybold's crop is very much like it.—It is very pretty grain—Mr. Hathaway says of it, "that it produces well, and will succeed on worn and meagre land—and although the season has been very wet with them, and the grain not so bright as usual, still it is plump and heavy, and that a neighbor of his has just thrashed 35½ bushels of this wheat from 7-8 of an acre and 2 bushels sown.

To the wheat growers of Maryland and Virginia, and indeed of our whole middle states, in part of the country, we think this grain is destined to

become of vital importance, and that it will succeed in those states as we have ascertained it will do in Delaware, I have not the least doubt. Here its yield has been about 30 bushels to the acre, without manure, and on a tolerable soil only:—whilst the winter wheat in adjoining fields, cultivated in the best manner, and by a good farmer, has not given half that crop, in consequence of the change in our winters, and the ravages of Hessian fly. The loaf I send you is the best essay that can be given on the subject; as it settles and establishes the fact that good flour and *white and light bread* have been made, exhibited and eaten, for the first time in this state from *spring-wheat*. This test, has made many converts to it with us, and although our farmers should not abandon winter grain altogether, it is a most happy reflection for them to know that they have a second resource in the *Italian Spring Wheat*, should their first crops fail.

To the doubtful and prejudiced farmer, perhaps the argument I have sent you (the bread itself) will scarcely be sufficient to convince him that the experiment will answer. All we need ask of him for the present is, to lay aside his preconceived notions, and give it for a season or two, a fair and honest trial. The improving spirit of the age demands investigation into every reasonable proposition, and if its principles are found to be correct, an intelligent mind will soon adopt them.

I have detained you much longer on this interesting subject than I had intended, but as I have been highly gratified at the result of the experiment myself, you will excuse me for having been thus prolix:—perhaps much *better bread* made from spring wheat is familiar to you—to us, it is a novelty. I regret that you will not get it as fresh as it was served at the dinner table, and with the appliant of the fine premium butter exhibited on that occasion. As some of your friends might like to see the heads of this wheat, I send a few plucked from the field before they were ripe and filled—they will convey, however, a good idea of its general character. It grows tall and presents almost the rich appearance of a field of barley. The premium list, and detailed account of our agricultural and horticultural exhibitions, which took place on the 4th inst. are not yet published. I will send them to you for your paper as soon as they are out. I am happy to inform you that the proper agricultural spirit is getting up in Delaware. The New Castle county Society has just held its second annual cattle show—Kent has organized a society, with some of her most prominent citizens at its head, and we doubt not now, that the good example set, will be followed by Sussex, and many of the adjoining counties of the Eastern Shore of Maryland. Asking the aid of your valuable exertions to bring this state of things about,

I remain, yours,

Most respectfully,

JAMES W. THOMSON.

Mr. Ashur Shepard of Northampton, Mass has invented an ingenious and beautiful Loom for weaving Ribbons, which foreign weavers pronounce superior to anything in use in their own country.

CULTURE OF THE MORUS MULTICAULIS, SILK WORMS, &c.

Mr. Roberts—The following paper on the subject of *Morus Multicaulis*, Silk, &c., has been drawn up in consequence of the numerous applications made to me for information on the various branches of the subject; and for the purpose of correcting numerous errors that continually pervade the public press. Every word I write is founded upon my own experience. Another object in drawing up this paper, is to endeavor to rescue the credit of many valuable improvements in the business, which have been filched from the author of them.

There can be no doubt with those who have made themselves acquainted with the qualities of the various varieties of the mulberry, that the New Chinese *Species*, or *Morus Multicaulis*, is the best for feeding silk worms. I estimate the comparative value of the *Morus Multicaulis* and the best White or Italian variety, as one to two; that is, I consider the *Morus Multicaulis* worth one hundred per cent. more than the White Italian.—It saves nine-tenths of the labor in gathering the leaves, on account of their being at least ten times the size of those of the White. One pound of *Morus Multicaulis* leaves contains one-third more nutritive matter than a pound of the best White mulberry leaves; the reason of this being, there is very little woody fibre in the *Morus Multicaulis* leaves, and in the best White there is a very large portion, all which passes off in the form of excrement. The *Morus Multicaulis* affords leaves, and is not injured by the loss of them, the first season—all they require is a few to be left on the tops and ends of the branches. The White requires to be 3 or 4 years old before it can be used. The *Morus Multicaulis* is perfectly hardy, when grown on its own peculiar and natural soil, which is light, dry, and not over rich. On low rich soils, their growth is protracted to so late a season that they do not ripen their wood, and of course they are killed to the ground in winter. I have uniformly grown them on high dry rather sandy soil, and never lost a branch or a bud; while others, who planted them on low alluvial rich soils, have lost them every winter. Mr. Robert Sinclair, in the Farmer of the 8th of August, inst. gives the result of an experiment he tried last year in cultivating them on high ground, in which they proved perfectly hardy; whereas heretofore when he planted them on low rich soil, they had been killed down by the frost of winter. Mr. Sinclair forgot to state that this was an *old practice* with me, and that I had frequently remonstrated with him for planting them in this low rich ground. He states that it was an “experiment,” leaving the public to infer that it originated with him; whereas he was well aware that I had long practised it with invariable success, and had frequently recommended it to him, as well as to the public.

The *Morus Multicaulis* is propagated with more facility than any other kind. A piece of last year's growth an inch long, with only one bud, is all that is wanted to make a tree 5 or 6 feet high in one season. Make a hot bed in the ordinary way, as for raising cabbage plants, about the 1st to the middle of March; take the limbs that grew last year, cut them in pieces, with one bud on

each piece, stick them into the bed in a slanting position, inclining to the north with the bud on the south side, its point just even with the surface of the soil; water them every evening, shade them when the sun is powerful in the middle of the day, and about the 1st of May they will be about the size of cabbage plants, and ready to be set out where they are to grow; take them up as you do cabbage plants, set them out, water them freely for a few days, put a cabbage leaf or any such thing over them for a day or two to shade them, and they will grow off, and form fine trees 4 to 6 feet high the same season. This has always been my method of propagating them, and the plan originated with me. I was surprised to find last year, Mr. Sinclair endeavoured to obtain the credit of suggesting this method of propagating *Morus Multicaulis* trees. He published in the Farmer and Gardener and other papers that he had succeeded in propagating them from single buds, and in this, as in the case above noticed, leaving the public to infer that he was the discoverer of the new method, when the fact is that *I instructed him in the whole process*. It is to me a matter of no moment in a pecuniary point of view, for my only object is and has been the furtherance of my country's interest in this respect; but it is rather mortifying, after laborious experiments and study,—working for nothing and finding one's self, to have even the credit of our labors and discoveries filched from us.

In extending the mulberry orchard, take the whole top of the tree raised as above last year, cut off three or 4 inches from the ground, cut it up and plant the cuttings as above. The old root will send up half a dozen shoots, each of which will be as large as the whole tree was before it was cut down, and thus furnish more cuttings for the next year.

If the trees are raised on the proper soil, they will want no protection; if they are growing on low rich, or any low soil, they must be taken up in the fall, and “laid by the heels,” either in a dry cellar or a shed open to the south. Lay them in a slanting position, close together, burying the roots perfectly in the ground.

If cuttings are desired to be kept through the winter, the best way is to dig a hole in some high dry place and bury them a foot or two in the ground. They may be kept also by being wrapped in green live moss from the swamps, and placed in an ordinary cellar. I have kept them all winter in my office by tying them in a close bundle and setting the but ends in a basin of water so that the water covered about an inch of the ends. In this way they were not only preserved, but the buds began to grow too soon, from the warmth of the office.

Many persons recommend that the trees be cut down to within three inches of the ground, and the stumps covered to protect them, and feeding silk worms from the leaves of the young shoots. This is bad practice, and should not be followed—besides, it is not necessary, as, properly cultivated in a proper soil, as above stated, they want no protection. The objections to the practice are—the lateness of the season before the shoots will be large enough to afford a sufficient supply of leaves; and the succulence of the leaves from these young shoots. Both these objections render the practice inadmissible—your worms will

starve to death before the shoots will afford leaves; and if you *can* keep them alive till leaves are produced, you will be very apt to lose them by disease, produced from feeding them with the too succulent leaves.

The *Morus Multicaulis* cannot be propagated to any extent from seed, simply because the trees produce so little that it will not pay for saving even if it sold at its weight in diamonds. The whole of the seed that has been sold for some years in this country, as *Morus Multicaulis* seed, was spurious, and I was so well aware of its spurious character that I have never bought or used a grain of it. I have used all my influence to prevent my friends and correspondents from being imposed upon by it; but unfortunately, self-experience is the only school for some people. I assert that no genuine *Morus Multicaulis* seed can be offered for sale here or elsewhere; and time will prove the truth of the assertion. I would not be uncharitable, but I verily believe that the idea that the *Morus Multicaulis* was a variety and not a species, and therefore that its seed would not produce its like, originated with those who were engaged in speculating in "*Morus Multicaulis* seed," and that its object was to cover the imposition of other seed upon the public for *Morus Multicaulis* seed. As it produced all sorts of mulberry trees, except *Morus Multicaulis*, it was desirable to attempt an excuse. And this was resorted to—lame and impotent as it is. I assert positively that it is a distinct species, that its seed produces its like exactly, as I can at any time satisfy any person, having trees raised from seed by myself. But it is of little importance whether the seed will produce the true *Morus Multicaulis* or not, as the seed cannot be obtained. I have the oldest tree in America, and it never produces good seed enough to make it an object worthy of notice; besides the trouble of keeping weeds down, &c. and the ease with which it is multiplied by cuttings, would prevent my using seed if ever so abundant and cheap.

There are many mulberry trees in this country called *Morus Multicaulis*, that are not the true kind. I have seen hundreds of such. They are the broad leaved variety of the white mulberry. The *Morus Multicaulis* differs entirely from all others in several respects. Its specific name points out one of its peculiar characters, viz. *multicaulis*. While all others form single bodied trees, the *multicaulis* continues sending up new stalks from the crown of the root, and thus growing in clusters of bushes like the lilac, hazle, &c.—hence the name *multicaulis*, *many stalked*. The leaves are not only larger than any other kind, but their form is different from all others. The leaf is invariably *bowled*, so much so that it is impossible to spread it out flat without tearing the sides. This form is not seen very conspicuously in the young seedling, but as soon as the plants get a foot or two high and the leaves attain half their proper size, it is very distinct. The leaves are so large that they always hang pendulous, when full grown, and somewhat folded lengthwise. These peculiarities will enable any one to distinguish the true tree from all others.

Let me advise purchasers of *multicaulis* trees to be cautious in receiving budded or grafted trees. They are worth nothing but for cuttings, their roots are of no use; while those on their own

roots have the advantage of the roots to furnish new supplies of cuttings from year to year. Budded and grafted trees also may be lost altogether by the perishing of the tops in transportation; while if the whole top of a tree on its own roots perishes, only the cuttings of one year will be lost, the root will live and furnish abundance of cuttings for another year.

No other preparation of the ground is necessary than turning it over once to destroy grass and weeds, and then keeping the ground clean during their growth. The poorest ground need not be manured, though it would be best if in tolerable condition. Any ground that would produce ten bushels of corn to the acre, will be good enough for them. The fall season is the best time to obtain the trees, and the spring the best to plant them out. I would recommend them being obtained in the fall and kept "laid by the heels" till April, and then set in their proper places. The reason they ought to be obtained in the fall is, that they may be ready to set out at the proper season in the spring; whereas, if not obtained till spring, various accidents and delays may cause them to come too late, and they may thus be lost or retarded in their growth, so that the next winter may injure them.

SILKWORMS—A radical error of our countrymen in commencing the culture of silk, is their beginning at the wrong end. Almost all of them obtain a supply of silkworm eggs first, and then go in search of mulberry leaves to feed the young worms with. Because the forest is full of the native mulberry, and the fields studded with white mulberry trees, they think they can readily obtain a sufficient supply of leaves for two or three hundred thousand worms "to begin with;" and so they can for the first two or three weeks, but during the 3d, 4th and 5th week, when the worms eat almost their own weight of leaf every day, and when it is absolutely necessary to the full accomplishment of their object that they should have a full supply of fresh leaves continually before them, the supply fails; the labour of gathering a sufficient quantity from trees scattered through the woods and almost inaccessible from their height, is found to be insurmountable, and the worms are stinted in their food, dwindle along 3 or 4 weeks more half-starved, and at last spin an imperfect cocoon that is good for nothing. Many persons do worse than this. When the worms enter their fourth stage and consume a full quantity of leaf, they are abandoned altogether and starve to death. Millions upon millions of these interesting insects have perished in this way within my own knowledge. Some years since I visited a person a few miles from the city, who had been boasting of his large number of worms a week or two previously. I found them scattered over the floor, walls and ceiling of the large room, wandering about in search of food, and half famished. He said he found he could not get leaves to feed a tenth part of them, and had abandoned them in despair. There must have been a million at least. They all perished. He never could have obtained leaves enough to feed 50,000 worms from all the trees within his reach.

The proper way is to secure a convenient mulberry orchard. It should be as near the laboratory as possible, and should be sufficiently extensive to supply twice the number of worms you

calculate on keeping, as a security against accidents, &c. After you have secured the mulberry trees then obtain the silkworms. If you have no experience with them begin with ten thousand; and the next year increase the number. Ten thousand worms will be enough to learn you how to manage a larger number, and they will furnish cocoons enough for you to learn to reel silk with, and a sufficient supply of eggs for another year. Use all these cocoons to learn to reel with—don't try to make the finer qualities of silk, but learn to reel any thing. The object is to "get the use of your tools." Learn to catch the fibre and join it to the thread expeditiously; adapt your sense of touch in the fingers to the extremely fine fibre that you may be able to *feel it*; enable yourself to understand the proper temperature of the water for dissolving the gum of the cocoons, that you may be able to make the fibre run or unwind well. All these little details, simple when understood, and easily acquired, but absolutely necessary to a good reeler, are to be learned only from practice,—patient, persevering practice, uncheeked by feelings of interest or fear of losing cocoons. But a few weeks, even a few days, are sufficient for the accomplishment of the object.

It is not my purpose now to give instructions in the whole art of reeling, or managing silkworms, that object has been fully accomplished in various publications in the *Farmer*, in pamphlets, and books. The present paper is merely intended to supply deficiencies in other publications, to call attention to some prominent points, and to correct certain errors.

Let me urge attention to cleanliness in the laboratory, essential to the comfort and health of the proprietor and his assistants, as well as to the success of his business. Always keep a box or some other vessel of chloride of lime in the room with the worms. A jar with a pound or two of it standing open, will keep the air in the room sweet, and thus protect the worms from disease. If from inattention your worms become affected with the *Tripes*,* lose not a moment in sprinkling the floor with a solution of chloride of lime, and set saucers of it in various places. It will speedily cure those that are sick, and prevent any further extension of the disease.

This remedy for the *Tripes* is also my own discovery. It was published in the *American Farmer*, and the *Farmer* was regularly received by several members of the society of Agricultural Science in Paris; notwithstanding which, many months after its publication in the *Farmer*, a paper was read before that society giving the details of the important discovery by a citizen of France, that chloride of lime was a sure remedy for the

**The Tripes* is a disease among silkworms analogous to the plague in the human family. It is caused by foul air, in the room, generally in damp weather. The foul air proceeds from putrifying vegetable substances, such as stale leaves, &c. The first symptom shows itself in the worms ceasing to eat, throwing their heads back, and becoming of a black color. They soon turn quite black and die in an hour or two, and mortify in another hour, when they smell very badly. The disease will spread over the largest establishment in 24 hours, if not suppressed by the free use of chloride of lime.

Tripes. However, it matters little to the public who is entitled to the credit of so important a discovery, so long as that public has the advantage of it. But I would suggest that there will be little encouragement to labourers in the fields of scientific discovery, if they are to derive *neither* interest nor credit from the results. The public is so prone to forgetfulness on this subject, that most discoverers now-a-days resort to patents to enforce their claims, and if the public will not be voluntarily just, it seems no more than proper that some such process should be adopted.

In their anxiety for improvements, those who enter upon the silk business are too apt to adopt useless if not injurious innovation. There are many parts of the French and Italian practice that may well be improved, some of which are useless and some few ridiculously so. But we must not infer thence that their whole practice is wrong, and that we are capable of substituting an entire new one. Among all our experimenters we find no one than tries the brush or twigs universally used by the French and Italians for the worms to climb and spin their cocoons on. We are continually inventing new plans for this part of the work, such as building frames, &c. But it seems to me that the simple brush that has answered the purpose for hundreds of years in other parts of the world, might be safely adopted in this. I have escaped this symptom of the mania so far as only to propose the use of *broom-corn brush*, as being more convenient and simple than the brush of the French. It answers the purpose admirably with me.

Again, our people are endeavouring to make themselves and the public believe that we can produce successive crops of silkworms in the same season, so that the work of producing cocoons may be extended through the whole summer instead of being confined to about six weeks in May and June. If this could have been profitably done, the French and Italians would have long since found it out; but we are not left with the conjectural uncertainty of an *if*;—it was fairly tried years ago, and resulted, as any body but one gifted with the sanguinary mind of a new beginner might have known, in an unprofitable expenditure of time and labor. The eggs may be forced to hatch the same season they are produced; but it is unnatural, and they hatch so irregularly that a profitable result cannot be obtained.*

I see by the newspapers that one of our new beginners has discovered and taken under his care a new species of silkworm, an American silkworm,—whose cocoon is some eight or ten times as heavy as that of the common,—and from which he expects to produce wonderful results. Many years since many of these American silkworms

*Since the above was written I have learned that some gentlemen in New Jersey are enabled to prolong the season of feeding worms, by keeping the eggs in an ice house, and bringing out portions as they want them through the summer. If put into an ice house immediately after they are produced, and kept there, this plan may answer the purpose; but if put there on the approach of warm weather in the Spring they will hatch, even in the midst of the ice, as I know from experience.

were sent to me from the South and the North—from the East and the West; and I was then, as he is now, elated at the idea of introducing this new and valuable improvement in the silk business; but the worms would not feed kindly, the moths flew away as soon as they escaped the cocoons, and the cocoons could not be reeled.—Worse than that, even when reeled the silk was coarse and harsh. Nothing that I could think of would dissolve the gum of the cocoons, even with twenty-four hours soaking. Of course I let the moths fly away. There are several varieties of worms that make cocoons in this country, but it does not follow that the fibre of those cocoons is as valuable as that of the true silk worm.

The best and simplest hurdle for the accommodation of silkworms is that suggested in my Treatise published in 1830 in the American Farmer, and in pamphlet form, and which I have always used when I had worms. It is made as follows—a frame 5 or 6 feet long and 3 wide, made of plank 2 inches wide and 1½ thick; like the outside of a window-sash; make holes through both side and end pieces with a bradawl about three-eighths of an inch apart; pass strong twine through the holes lengthwise and then crosswise, and thus form a net work bottom for the hurdle. This will allow the dung of the worms to fall through upon a similar frame with a paper bottom that should be placed under it. It saves a good deal of labour in cleaning off the litter, and permits air to pass up among the worms and leaves.

I perceive that this hurdle is also claimed by our ingenious countrymen at the East, as of their *invention*.—Pity that their ingenuousness did not equal their ingenuity.

It is a common error to suppose that the young worms require young and tender leaves to feed on. They, on the contrary, eat the most mature leaf with as much greediness when a day old as they do when full grown. The French recommend cutting the leaves into small pieces, and have a knife for this purpose; this practice I found injudicious, as the worms press upon the mass and make as it were a carpet of it, and much leaf is lost. I prefer laying on the leaves whole—the worms will speedily cut them up for themselves. This practice is only equalled by the French recommendation, to separate the male and female moths after having been together six hours in the act of copulation. Following their directions, for in those times I had no other guide than the French books, I separated all my moths after six hours, and to my mortification one half my eggs were *not fecundated*. After that I allowed the moths to take their own course in this affair, and all my eggs were thenceforth good.

In conclusion, I would recommend those who desire to enter upon the silk business, in the first place to secure a supply of *Morus Multicaulis* trees, and establish an orchard; then go ahead—leaving experiments and improvements upon the well known and successful methods and furniture to be suggested by experience as they progress.

GIDEON B. SMITH.

[From the Pittsburg Advocate.]

SILK.

The culture and manufacture has progressed to an extent in this neighborhood, of which we had not been aware. We were shown the other day a

black silk vest pattern of the very finest and most durable quality, which was manufactured wholly at Economy, Rapp's settlement, about 18 miles below this city, on the Ohio. It was in the hands of a merchant, who had cut it from the loom for the purpose of making himself a vest, believing that it would make a much more durable and equally as handsome a garment as procured any where made from silk—the article, notwithstanding, is one-third cheaper than foreign silk in price, and an additional third in wear. A beautiful and very durable article of the best sewing silk, was also shown to us, which was manufactured at the same place. We understand that all the silk manufactured by this society meets with ready sales.

[From the British Farmer's Magazine.]

MANUFACTURE OF BEET ROOT SUGAR.

(Continued.)

Bin to slake Lime in, and Buckets for the liquor.

The lime employed for the defecation of beet root juice is generally unslacked, weighed in that state, then slacked with water, and afterwards, by adding more water, reduced to the consistency of cream. For this operation, a bin, or cistern, of a particular form is required: it is, for the most part, circular with a cover.

M. Dubrunfaut, however, is of opinion that lime should not be weighed till after it is unslacked, as yielding more certain and uniform results; in which case, a large quantity might be slacked beforehand. It is sifted pretty fine, to separate all the coarse and unburnt lumps, which, in the usual method of applying the lime, are reckoned as so many active agents, whereas, they are of no use at all in the clarifying process; and hence many errors in the general results.

A Lead or Copper vessel for the Sulphuric Acid.

The sulphuric acid is usually diluted with five or six parts of water before using. This is performed in a wooden bucket, the hoops of which are of copper, instead of iron.

Instrument for stirring the Liquor in the Copper.

This should be a round stick or pole, twice as long as the copper is deep. At one end is a round piece of wood about a foot in diameter, pierced with holes.

A plated Spoon in which to examine the Juice, and a Saucer.

The spoon should be kept bright, that the workman may judge more readily when the clarification is complete.

The saucer should be very white. The use of it is to receive the small drops of syrup of violets and *tournesol*, to ascertain, by touching them with the liquid under clarification, the excess of alkali and acid.

Large Skimmer.

This ought to be at least eight inches in diameter. It is not always considered necessary to remove the scum from the boiling liquor, and especially when the precipitating method is resorted to, as it forms a sort of cover or guard to the liquor against too sudden refrigeration by the action of the air.

Filter for Skimmings.

An enclosed or covered filter is recommended in preference to the one in common use, it being

important, in order to get as much liquor from the skimmings as possible, that they should not be suffered to cool too fast. The construction should be the same as that hereafter described for the juice, only that the one may be made of coarse cloth or canvas, and the other of fine linen. The filter should be provided with a receiver adequate to the amount of juice from one charge.

§. Of the different modes of defecation.

This is one of the most difficult operations connected with the manufacture of beet root sugar. The results are perpetually changing as the nature of the root changes during the progress of the work. We proceed to describe the simplest and most economical of the means employed, viz: lime alone, or sulphuric acid and lime together.

The first method of defecation—that of the Colonies.

After detailing the origin and progress of defecation in France, the author proceeds to show that lime alone, if not the best means, is at least capable, in good hands, of producing very important results, and instances the manufacture of M. Houdart, near Douay, as one of the best and most successful on this principle. Suppose 114 gallons of juice are to be clarified. The boiler being charged, and the fire burning, the thermometer is placed in it, and should be kept there till it amounts to 60° or 65° (167° or 178° of Fahrenheit.) During this interval eighty-eight pounds of lime slacked and sifted, are weighed out; four or five bags are then similarly prepared, each bag containing 7 pounds of lime. This done, the 88 lbs. of lime are put into a wooden vessel, where they are mixed with clear water, till they become like milk. This mixture is poured into the boiler when the temperature is above 60° or 65° (Reaumur.) The whole is then briskly stirred for some minutes, in order to incorporate the lime well with the liquor. Before the lime is added, a thick scum will show itself on the surface. Lime often destroys this scum, or at any rate, it is suspended in the liquid by agitating it when the lime is added. When thoroughly mixed, some minutes should elapse before the full effect will be produced; then, with a bright spoon, take a little of the liquor, and examine it carefully; if the quantity of lime be sufficient, the juice will exhibit a number of clots, or particles, in suspension, which will soon settle to the bottom of the spoon, leaving the upper part of the liquid perfectly clear and transparent and more or less of an amber color. If, instead of this, the lumps are very much divided, and only swim in the liquor without settling to the bottom, even for several seconds, and if the juice remains of a thick milky color, it is a proof that more lime is wanted.

One of the little parcels of 7 lbs. is then mixed with water, poured into the boiler and well stirred as before. The juice is then again examined with the spoon, and if the symptoms are still not so favorable as they might be, another 7 lbs. are added, and so on, 7 lbs. each time till defecation of the whole is complete.

88 lbs. of lime to 114 gallons of juice may always be used with safety. It is, in fact, the minimum dose that ought to be applied. The quantity varies with the quality of the beet root and the period of the season when applied. Thus, at the beginning of the season, when the roots are

rich and full of sugar, the greater will be the proportion of lime necessary. The object of the lime being to precipitate certain substances which impede the formation of sugar, it should, of course, be added in quantities adequate to the amount of these substances; for, experience seems to show, that as the quantity of sugar increases, so will also these extraneous matters. Thus, a firm, solid beet root requires more than a watery root, and vice versa.

On the whole, the safest way is to begin with little enough of lime, for it is very easy to add more from time to time, as above directed. But it is not to be inferred from hence, that, on the whole, a small quantity is preferable to a larger. So far as is this from being the case, that it is considered better to use too much than too little; for though an excess of this alkali is prejudicial to the sugar, it is always less so than an insufficient quantity. The observations of the workman cannot be too frequently taken during the process of defecating. A clear liquor and a perfect precipitation are the main objects to be accomplished. If these are not obtained, or imperfectly so, the results will be sure to suffer.

It has been imagined by M. Bardel, that the red beet requires more lime than the white; but M. Dubrunfaut considers this opinion as not altogether correct, and is rather disposed to refer the apparent difference to the season, which might that year produce a red beet of a firmer and less watery description than the yellow.

The beet juice, when it first comes from the press, is of a milky hue, and yet dingy. When heated the scum and froth rise; but as soon as the lime is added, the black, dirty color, disappears by degrees, and abundance of flakes are seen in the liquor. These flakes are usually of a yellowish grey color; when the proportion of lime is sufficient, they separate from the liquid and sink to the bottom. When arrived at this stage of the defecation, the fire must be withdrawn, and the boiler left to itself for an hour or two that the whole may settle properly. The cock placed just above the bottom of the boiler should be opened to draw off the liquor clear. The juice is then conveyed to the evaporating pans—of which more hereafter. Care should be taken to watch the liquor as it runs off, lest any part should become thick and turbid, especially towards the end; so soon as this is perceived, the cock should be closed and the lower one opened, that the residuum may pass through the filter. When this is all drawn off, the boiler is ready for a fresh charge.

The defecation by lime is denominated *the system of the colonies*, because there the process was made trial of, and long before beet-root sugar was even thought of. But it ought to be explained, that, in the present day, it is not used to such advantage in the colonies as in France. There, in fact, the management is left to a slave, who, not unfrequently applies the lime at random; and, of course, the results are, and must be, very unequal.

It has been shown that it is better to use too much than too little lime in defecation. Both are stated to be evils, and, yet of the two evils the former is the least. After having operated on the extraneous matter in the sugar, it then begins to act on the sugar itself.

Defecation by lime alone, then, has this grand, inconvenience, that a part of the sugar is destroy-

ed to save the other. In this process, in fact when this syrup is run into moulds, it produces an abundant crystallization; and the molasses, which come from it more rapidly than by any other method, have a very disagreeable taste and smell: they have but little sweetness; and if by any known process a second crystallization be attempted, not an atom of sugar can be obtained from them. Nay more, the sugar partakes of the bad taste and smell of the molasses, and is thereby rendered unsaleable in the market. Even after refining, these objections are still more or less perceptible. M. Dubrunfaut states that he has experienced this himself, as a refiner. The sugar produced by the lime was always very fair to the eye, the grain large, strong and open; but it had a peculiar smell, and left a disagreeable flavor in the mouth.

It is a pity that the defecation by lime presents these inconveniences, for it is the mode of all others the simplest, and best adapted to common farm establishments. It is, indeed, on this account that many manufacturers who have adopted it continue still to use it notwithstanding the inferiority it presents, both as to quality and quantity of its results as compared with those of other and more complicated methods. It cannot be recommended even managed in the best known manner. Its simplicity does not overcome its imperfections, and the author above quoted greatly prefers either of the following methods.

Notwithstanding the decided opinion here expressed by M. Dubrunfaut against the employment of lime alone as a defecating agent, it has been ascertained, by subsequent experience, that it is capable, under proper management, of producing very favorable results, both as to quality and quantity.

BIG OX OLYMPUS.

The Claremont Eagle says—

The Claremont Ox, Olympus, raised by Isaac Hubbard, Esq. of this place, we understand has been purchased of that gentleman, and in the course of the next or the following week will go to New York city, where agriculturists and others will have an opportunity of examining him, and perhaps gratifying their palates with a "taste of his quality." The Olympus is unquestionably the largest and noblest animal of the kind ever raised in this country. He was five years old last January, and now weighs *three thousand five hundred pounds*. He is well proportioned, and weighs 800 more than the great ox Columbus, though nearly three years younger than the latter, when last weighed and exhibited in Boston. He is in fact a mountain of beef, as his name would seem to indicate, and is well described by the poet—

—“He stood
Fair in his limbs, and, like Olympus, high
And vast from side to side—”

He will be shipped down the river next week, give the Hartford people a call between the 15th and 20th, and take the safest conveyance to the city of epicures. Easy—easy! good King Olympus! “This side up with care.”

THE FRUITS OF GOOD TILLAGE.

We remember to have read somewhere, of an old gentleman who owned a large vineyard. Be-

side this farm he was blessed with two daughters. On the marriage of the eldest he portioned her off with one-third of his farm, and behold the remaining acres produced quite as much fruit and wine as before. Soon after he married his young daughter and gave her an equal dowry with the first, and still the remaining third of his soil yielded as much as his entire original plantation. Good farmers will see no mystery in this. The moral of the story is, that as his farm became smaller he cultivated it more, and the same amount of labor upon a few acres, will make it produce the fruit of many.

There is a great difference between bad tillage and good tillage. Some farmers—no, some earth scrapers, merely scratch up the soil, and dropping their seed haphazard, trust to the change of the season. It is not wondered at, that such tamperers have to scratch hard for a living. We have heard many complain that large farms did not pay the expense of their cultivation—that manure is too expensive to use. The earth was therefore lazily scratched up sufficient to destroy the face of the soil, and the seed thrown away upon it. We need not say that such farmers have but little grain to sell, and not much money in these hard times, to put out at interest.

Take another case, however; that of the farmer who makes his farm his pride, who means to show his labor and his skill upon every acre, and mark the difference. The land pays treble value upon its surface for all that has been bestowed upon it. The owner enriches the soil, and the soil in its turn enriches its owner.

Every farmer to make his farm a source of profit, should make it a source of pride. Whatever portion of the soil is cultivated, should be well cultivated. The point should be not to have many, but rich acres. The means whereby husbandry is improved and facilitated, should be studied and employed. By such careful attention, a continual pleasure will be found in agricultural pursuits, which will heighten the rewards of good tillage.—*German town Tel.*

THE WEATHER—CORN.

The weather for the last fortnight past, has been unfavourable to the growth of all latter corn. Our farmers are generally stripping fodder, and it is rendered positively certain, that the corn crop will be a light one—very light in many places.

A short ride into parts of Dorset and Talbot counties, a few days ago, convinced us that the same unfavourable prospects prevail there, as in Queen Ann's. Indeed the same cause has operated every where north of us.—*Centreville Times.*

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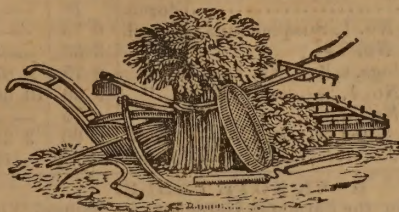
Ice and frost—notice of a loaf of bread from Italian spring wheat—notice of the silk culture on the Eastern Shore, and of Mr. Gay's labors—the hollow horn—great crop of hay, and great expedition in securing it—agricultural items from Virginia—communication from Dr. Jas. W. Thomson on the subject of spring wheat—loom for weaving ribbons—Communication from Gideon B. Smith on the culture of silk, &c.—manufacture of silk at Pittsburg—on the manufacture of beet root sugar—ox Olymberg—fruits of good tillage—the corn crop on the E. S. of Maryland—advertisements—prices current.

MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which are ready for sale.
EDWD. P. ROBERTS.

ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3½ per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat.
Address, (post paid) EDWARD P. ROBERTS,
jy 25 4t Baltimore, Md.



MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,

CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz ,

11 inch Boxes, \$30, extra Knives for do. per sett \$4,
14 " " \$45, " " " " 5,
20 " " \$75, " " " " 8,

CORN SHELLERS—hand machines \$20, horse do. 40.
1500 PLOUGHS, of various sizes and patterns, among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each.
CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each.

DRILL and SOWING MACHINES at 6,20 a \$100 each.

FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox Yokes and Bows, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES, &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

MULBERRY TREES.

THE Queen Ann's County Silk Company have the following Trees for sale:

50,000 Morus Multicaulis or Chinese Mulberry
200,000 Morus Alba or Italian Mulberry
500,000 Morus Multicaulis Cuttings.

The company will sell the above trees at moderate prices and deliver them free of charge in Baltimore if required. It is thought by practical growers that they should be removed in the fall.

WM. HARPER, Treas'r.
Centreville, E. Shore, Md

The 'Silk Culturist,' and Ruffin's 'Register,' will please publish the above three times, and mark the cost at bottom.
se 29 3t

ROBERT SINCLAIR'S NURSERY, AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known

—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, English Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary.
oc 17 5t ROBERT SINCLAIR, senr.

GEESE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnet's stock, BOTH PURE WHITE.
oc 17 5t ROBERT SINCLAIR, senr.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Superior Grain Cradles
Weldron Grain and Grass
Scythes

Farwell's Patent Double
Back Grass Scythes and
Snathes

Hay Forks and Rakes
Manure Forks, Shovels, &c.
English Corn Hoes

Superior American made
Cast-steel Hoes, with handles
Wheat FANS, of various
sizes

Mattocks, Picks and Grubbing
Hoes
Corn Shellers

Threshing Machines, with or without horse power
F. H. Smith's Patent Lime
Spreader
A great variety of Ploughs of all sizes, with wrought and cast iron Shares

Swingle Trees and Hames
Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice

Liberal discount made to those who purchase to sell again.
All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
jy 4 J. S. EASTMAN.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Mo

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel.	96	98
White,.....	"	90	92
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 50	
" wagon price,	"	8 25	
City Mills, super.....	"	8 25	
" extra.....	"	8 75	8 50
Susquehanna,.....	"		
Rye,.....	"		
Kiln-dried Meal, in hhds.	bhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	6 50	7 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	33	32
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	82	85
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 80	1 85
Red, best.....	"	1 70	1 75
Maryland inferior	"	1 10	1 40
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hhds.....	"		37
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	
To Wheeling, ..	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured...	pound.	13	13½
Shoulders,.... do.....	"	10½	10½
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....par		
Branch at Baltimore,.....do	Farmers Bank of Virgi. 14½	
Other Branches,.....do	Bank of Virginia,..... do	
MARYLAND.		
Banks in Baltimore,.....par	Branch at Fredericksburg do	
Hagerstown,.....3a	Petersburg,.....½	
Frederick,.....do	Norfolk,.....14½	
Westminster,.....do	Winchester,.....½	
Farmers' Bank of Mary'd, do	Lynchburg,.....1½	
Do. payable at Easton,.... 1	Danville,.....do	
Salisbury,.....2 per ct. dis.	Bank of the Valley,.... ½	
Cumberland,.....3	Branch at Romney,.... do	
Millington,.....do	Do. Charlestown, do	
DISTRICT.	Do. Leesburg,.... 1½	
Washington,.....	Wheeling Banks,.... a3½	
Georgetown,.....Banks, ½p.c.	Ohio Banks, generally 6a7	
Alexandria,.....	New Jersey Banks gen. 5	
PENNSYLVANIA.	New York City,.....½	
Philadelphia,.....½a	New York State,.... 3a4	
Chambersburg,.....1	Massachusetts,.....3a3½	
Gettysburg,.....do	Connecticut,.....3a3½	
Pittsburg,.....3½	New Hampshire,.... 3a3½	
York,.....1	Maine,.....3a3½	
Other Pennsylvania Bks. 4	Rhode Island,.... 3a3½	
Delaware [under \$5].... 6	North Carolina,.... 5	
Do. [over \$5].....2	South Carolina,.... 8a10	
Michigan Banks,.....10	Georgia,.....do	
Canadian do.....10	New Orleans,.....12	

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & Co.,
Light, near Pratt-street, Balt.

Sept. 10.

3t.

BAKFWELL RAMS.

For sale 6 Bakewell Rams, one of which was imported. The prices are as follows, viz: the IMPORTED Ram \$150, No. 1. of the native bred, \$100—No. 2, \$75; No. 3, \$50; Nos. 4 and 5, 35 dollars each. The five latter rams are one year old, in fine condition, and beautiful specimens of their peculiar and much admired long-wooled breed. As a proof of their superior quality it may be well to state that two brothers of the latter five were sold at the great Whitaker sale recently held in Philadelphia, for \$100 each, and a third one since for the same money at private sale. Applications to be addressed in writing to

JOHN BARNEY,
Philadelphia.
3t.

Oct. 10.

DURHAM & AYRSHIRE CATTLE.

The subscriber is authorised to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Mazum-bonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 3 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention. EDWARD P. ROBERTS,
Editor Farmer and Gardener, Baltimore, Md.
sep 12 4t

TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the plate 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of this size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and any one at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—It will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Apply to SANDS & NEILSON,
Office of "Farmer & Gardener,"
Jy 25 4t Corner of Charles & Market sts. Baltimore.

Printed by Sands & Neilson, N. E. corner of
Charles and Market streets.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEIL, JR.—EDITED BY E. P. ROBERTS.

No. 26.

BALTIMORE, MD. OCTOBER 24, 1837.

Vol. IV.

THIS publication is the successor of the late
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TUESDAY, BALTIMORE: OCTOBER 24, 1837.

Mulberry Culture—Believing that the fall is the best season for persons at a distance to procure their supplies for early spring planting, we take the liberty of stating that we have between 25,000 and 30,000 *Morus Multicaulis*, or many-stalked Mulberry trees for sale. The roots are chiefly two and three years old, and if planted on the first opening of the earth next spring, might be freed from next season. Anxious to spread the culture abroad, we shall sell our trees with their heads undespoiled of their limbs, and to such individuals or companies as will take 3000 or upwards, we will make the price an *object*. That this variety of the mulberry is better adapted than any other to feeding the silk worm, there can be no question; this fact, together with the firm conviction which rests upon our mind, that the culture itself, if properly fostered, is calculated to confer lasting benefits upon the country, make us solicitous to see it prosper. Persons wishing to know our terms will please address *Edward P. Roberts*, Baltimore Md.

Wheat—Those who have not yet got in their wheat, we would remind of two things. *First*—by no means to omit putting their seed in a *soak* made of *brine*, *lime-water*, or *ley*—and *secondly*—to plough it in some three or four inches deep; while the first will cleanse the grain of all smut and destroy any eggs that may be deposited on its surface, the latter will greatly tend to prevent the frost from spewing the plants up, should the coming winter prove to be one of alternations of freezings and thawings, which are so disastrous to small grain.

Potatoes, Beets, &c.—All roots that are now fit to be taken up out of the ground, should be gathered and secured before the frost affects them.

Spring Wheat—To prevent disappointment we respectfully state to our readers and patrons that we have closed our sales of spring wheat.

HARVESTING BEETS.

Let a man pass between the rows, loosening each Root with a spade—while another man or a boy follows him pulling up the beets thus loosened and shaking off the dirt which adheres to them, by knocking two of them together. He then lays them upon the ground in a row, perfectly straight and regular, with all the tops or leaves in each row turned the same way. A man then walks between the rows with a sharp spade and cuts off the leaves of each with a smart stroke. The roots are thrown together in small heaps and the leaves may be gathered and fed to cattle or swine, who will devour them greedily if not too much injured by frost. When they are harvested late this is always the case, and they may then be ploughed under and will make a good dressing for the land.—[*Courier*. H. O. A.

SMUT IN GRAIN.

We are surprised to learn that smut is still permitted to adulterate and diminish our grain crops, when it is a fact amply and satisfactorily established, that steeping the seed grain twelve hours in brine, and rolling it in fresh slaked lime, before sowing, will prevent the evil. The *paper-brand*, *dust-brand*, the two species of smut, are parasitic plants, the minute seeds of which attach to the grain, and are propelled through the sap vessels of the plant, to the germs of the young grain. The salt and lime destroy the vitality of these seeds.—*The Cultivator*.

INSECTS IN WHEAT.

An Extract from a letter to F. Wood, Esq. of Winthrop.

ELIJAH WOOD, Esq.—Dear Sir:—I received your letter of the 12th of August, some two or three days since, and hasten to reply. It seems from your letter that the grain worm has been doing serious injury in your part of the country, and you appear exceeding anxious to learn all the facts you can, for your own benefit, and also the public benefit. I am glad to find you so wide awake on this subject, for I verily believe the greatest obstacles which impede our success in the cultivation of grain, originate from the depredations of insects.

I have to regret that my attention has been so much diverted by other cares and duties from this subject, so that many observations have not been made with that accuracy I could wish. I find, however, that some of my neighbours have paid some attention to this subject, and have kindly answered my enquires. I will briefly state the result.

1st. The extent of the injury done this year, compared with the last.

The most of people with whom I converse, set it much lower than last year. On low lands and intervals the damage is much the greatest.

2d. There appears to be more than one species of them producing the injury to the grain. I say *grain*, for spring rye has suffered perhaps more than wheat. I had a piece of late sown winter rye in the same field with a piece of wheat—side by side. I first noticed some small black flies on the rye heads; the full grown ones somewhat larger than the species in common language emphatically termed "*Black flies*," so well known in new settled places by their excessive biting. But their business appeared to be entirely with the grain, as they were apparently forcing their heads down among the husks enclosing the kernel. I noticed the same appearances in a neighbor's field in detached rye heads among his wheat; and he has since given me a very minute account of their operations. He states, that, when the rye heads first started up above the wheat, and began to blossom, the flies would crawl up on them and appeared to be digging into them; and he observed that when he saw these in plenty at night, in a very short time the new forming kernels entirely disappeared, and that there was not a single kernel of rye to be found in these detached heads. At this time no flies were seen on the wheat. Soon after, the bearded wheat, where there happened to be detached stalks in the field, (being a little earlier than the bald wheat,) started up above it, and arrived at the same state of maturity, the flies attacked that; and lastly the bald wheat. My neighbor is confident, from his observation, that these flies injured the grain by sucking the juices, as well as depositing their eggs and producing worms. The same neighbor has considerable winter rye, but noticed no damage on that, either by flies or worms; but he has one piece of spring rye almost entirely ruined by them. He says he has seen but very few of the long slim flies described in the papers. Another neighbor has stated to me the same facts as to the color and size of the flies he saw on his grain; so it seems, that, in this neighborhood at least the greatest injury has been inflicted by this species of fly.

I conversed, a day or two since, with a gentleman living in Dixfield Village, who informed me that the flies most plenty on the wheat in that vicinity, were the slim orange colored flies. And I have made enquiries of some other people in different parts of the country, who generally agree in regard to shape, in describing the flies they have noticed, but not in color. I have, myself, seen but one of the orange colored flies this year, and that was when I was washing my wheat to sow. This was on the grass where I had been skimming off the blighted wheat. Two or three days ago, about sunset, after a very warm day, I seated myself at the edge of a late sown piece of wheat, for observation. I saw perhaps a dozen species of flies, of almost all shapes and sizes, apparently busy among the grain, both on the stalks and heads. One of them resembled the orange colored flies in shape; but was yellowish white in

color. Those flies were all exceedingly nimble in their movements when disturbed, and were as active on the wing as gazellen are on the foot. At the same time I saw myriads of similar looking flies basking in the sunbeams in various directions.

3d. Last year I sowed a piece of wheat on a field 70 or 80 rods from any other cleared field, and where no manure had ever been carried, and where no other grain had ever been cultivated except oats, and a very small piece of wheat, some three or four years before. This was injured by them the worst of any I ever had. I did not get the amount of seed sown. Though we may well suppose some of these might be carried in the seed wheat, yet why should they be thicker there than about the barn, &c. where they might be carried in the manure, and in various other ways.

I believe, Sir, it would be nothing but vanity or obstinacy in any one, to speak with much confidence as to any remedy for preventing their attacks. Lime and ashes have been tried in this neighborhood without success; and as to smoking our wheat fields with brimstone I have little faith in the process. All these different kinds of flies seem to agree in one thing: they take shelter among the weeds and grass at the bottom of the grain. Here I think we must attack them to succeed; and I think it would be difficult to get smoke to settle low enough to dislodge them. I hope, however, you will pardon me for theorizing a little. If we could, by trying experiments on a small scale, and any liquid substances, (not too costly) that would dislodge them, we might, I think, then find some way to spread it over our fields. I have thought of two:—First, by engines—English Agriculturists use engines for similar purposes. Second, by spouts—such as are used in some places to water meadows, &c.—These being fixed in proper places in the spring when the wheat was sown, might serve for the triple purpose of conveying liquid manure over the land—supplying the grain with moisture in time of drought, and of conveying some liquid substance to dislodge the flies, and of course prevent the worms. This plan, too, anticipates another advantage. You might then plough the most barren field, and fearlessly sow it with wheat, and manure it just as you pleased, or as experience should determine to be most advantageous.

I am, very respectfully, yours,

JOSEPH H. JENNE.

Peru, Sept. 9th, 1837.

MANGEL WURTZEL,

BY MARTIN BOYLE.

Mangel Wurtzel is a kind of *red beet*, not liable to be injured by disease or insects, and proof against the change of seasons. It requires loamy loose soil, and abundance of short and rich manure. It gives no unpleasant taste to milk or butter, (an objection which may be urged against turnips, and most kinds of cabbage)—quite the reverse. Pigs, as well as milch cows, are fond both of its leaves and roots. Sixteen or twenty perches under it, will support a cow, allowing her sixty pounds weight per day, for the five winter months; and a half a pound of seed, which will cost about 1s. 6d. will sow these twenty perches. From the 20th to the end of April, is the best time for

sowing the seed; and those of you who are not likely to have your ground at that time ready, should sow in a seedling bed, in order to transplant when the ground is prepared; and in this case you should not put out the plants until they are about an inch in diameter, else they will not arrive at full size. The best way, however, is to sow the seed where it is to remain, and the process is as follows:

Prepare your land as if for drilling potatoes—open the drills eighteen inches or two feet distant, the deeper the better, unless there is yellow clay at the bottom—fill them with short manure—cover them with four or five inches of earth—roll them lengthways, and then on the smooth and level top make hills with the dibbling stick, two inches in depth and about twelve inches apart, and into every hole drop two seeds, which are to be covered as the work proceeds. When the plants are about 2 inches high, you are to draw out from each hole the extra plant or plants, leaving of course the strongest and healthiest plant behind. Keep them clean from weeds, but do not earth them. If any of the plants appear to run to seed, pull them out and transplant into their room, after stirring up the earth, and applying a little fresh manure, (and to the want of attention to this point the comparative failure of transplanted crops is to be attributed) other plants of mangel wurzel, rape, cabbages, or Swedish turnips, which should always be in a reserved seedling bed, in case of failure in any crop. In September pull the leaves—[cutting them close to the crown will cause the root to rot if left in the field during the winter]—and give them to your cows, sheep, and pigs. You will also find that they make a good substitute for greens or spinach.

The following is Mr. Meadow's calculation of produce:

Drills 2 ft. distant, }	220 plants per perch—
Plants 2 ft. distant, }	23,280 per acre.
Drills 2 ft. distant, }	147 plants per perch—
Plants 18 in. dist., }	23,580 per acre.
Drills 18 in. dist., }	294 plants per perch—
Plants 1 ft. distant, }	47,040 per acre.
Drills 18 in. dist., }	252 plants per perch—
Drills 11 in. dist., }	40,320 per acre.
Drills 18 in. dist., }	195 plants per perch—
Plants 18 in. dist. }	31,360 per acre.

You may safely calculate on 30,000 plants per acre. If you average the plants at 3 lbs. each, which is much too low, you will have 90,000 lbs. or about 40 tons, not of a watery substance like turnips, but a firm nutritious food.—*Farmers' Magazine.*

[From the Poughkeepsie Telegraph.]

THE CROPS.

The crops are now about out of the way of the weather, as corn is being cut up and secured, buckwheat is gathered, and the other crops have long since been housed. In summing up, it may be stated that the wheat crop in this country has been light, but about the same as last year. Grass was much heavier, and the corn crop, though not a good yield, is considerably larger than the last season, while oats and buckwheat have turned out a most ample yield. We do not believe that such a harvest of these two grains has ever before been made in this country—at any rate, we may safely say it has not been exceeded. The condition of

our farmers, despite of a hard season to the country generally, is better than last year this time. Then many of them had been affected with the mania of speculation which was abroad, and had contracted more debts than in ordinary times and in a natural state of things they would have deemed prudent. And those debts were to be paid this spring. But as their crops turned out light last year they had but little to sell, and therefore have been able to pay but little. Still it has been a year of husbandry with them; not an article has been purchased that was not positively necessary; and as every thing they had to dispose of found a quick market and at a high price, they have got through the summer, paid something on their indebtedness, and now with full barns and granaries, and with desires restricted, they are much better off as a whole than they were a twelve-month since. But let us not be understood that this is the condition of all our farmers. Far from it. On the other hand, most of them are out of debt; they have not burnt their fingers by the speculations of 1836, and have never been easier in their money matters than for the past summer.

Agriculture has become a greater business than usual—the certainty of its returns and the independence of the farmer's life have come to be matters of calculation by those who formerly esteemed them very lightly. Many persons about this village—mechanics, carmen, &c. finding their business dull, have taken lots adjacent to the town and cultivated them on shares; every spot in gardens has been turned to account; and from all sections of the country we hear that about the same course has been pursued. The effect of this has been the planting of potatoes and other esculent roots, the cultivation of which is easy, and of which almost every person has some knowledge, in greater quantities than they were ever before put in the ground, and we believe the yield has been large.

Having published from several papers just prior to harvest, opinions in regard to the crops, which spoke of their probable abundant yield, we have endeavored to collect information since that time of what their product has been. A gentleman writes us from Castile, Genesee county, which is in the wheat district of "western New-York," of the date of the 3d inst. as follows.

"Our wheat crop in this vicinity is very much injured by rust; many fields of very heavy growth, sufficiently so if plump to yield from 30 to 35 bushels per acre, are reduced one quarter, one half, three fourths, and others not harvested at all. I presume to say that my crop will fall short from one quarter to one third, yet the straw my cradlers say is the largest they have ever cut. Our grass is good; corn a fine growth, but the prospect unfavorable for getting sound. I have a fine lot of mangel wurtzel and ruta бага. If the frost holds off that I may have a suitable season for maturing and gathering them, I will at some future day give you a statement of the yield by the acre."

Our information from gentlemen whom we have seen from the western part of the state confirms the above. The wet weather of June caused a rapid growth of wheat, which made the straw very large; and had we had dry favorable weather a few days before and at harvest, the yield would have been as large as was anticipated in

the early part of summer. But the continued wet weather brought on rust, and destroyed wheat to the amount of thousands if not millions of dollars.

But what do we draw from these facts the reader may inquire? That the crop of wheat in this state is on the whole better than last year—and doubtless much better, take the country over; that the corn crop is also better; that oats and buckwheat have never been surpassed; and that the yield of roots is also very large. Will the price of produce then be less? We think it will, *but still it will be high*. Flour will command from \$7 to \$10, and the price of other grains will be regulated accordingly. Butter and such articles will stand about as they have been. Pork will be some less, and cattle not quite so high. These are our views. They may or may not be correct. Time will tell.

[From the Ohio Farmer.]

MEADOWS.

It has been remarked by the writers on agriculture, that *natural meadows* are no where to be found; because all grass land which is in a state of nature, neither enclosed nor cultivated, is universally pasture. Many centuries probably elapsed, before the invention of preserving grass by drying it into a state of hay; and this discovery, which gave rise to what we now term meadow, is supposed to have preceded that of tillage; though this may be considered somewhat doubtful, when we reflect that, in the primitive state of husbandry in this country, the cattle which were intended for consumption through the winter, were slaughtered in the latter end of autumn, and salted for use. To such tracts of ground as consist of maiden earth, some persons are still disposed to limit the extent of meadow land; but generally speaking, all land that is annually, or even occasionally mown, is at present known under the denomination. Some considerable tracts of marsh have never yet been submitted to the plough, and much land, which, lying on the banks of rivers, is subject to be occasionally overflowed, is still in a virgin state; but by far the greater part of the upland meadow throughout the kingdom, bears evident marks of having been anciently under cultivation.

The *general management of meadow land*, lies in a narrow compass—little diversified by practice, except when rendered necessary by difference of season and quality of soil. As the early vegetation of grass is promoted by taking the stock soon off the ground, the uplands are usually “hayned,” or laid up at Candlemas; but richer land is often left open until the latter end of March; sometimes, indeed, particularly if the weather be moist, even later; but, if continued too long, the hay harvest is proportionally retarded and diminished. On this subject, Mr. Sinclair has stated that a given space of the same quality of grass having been cut towards the end of March, and another space of equal size left uncut until the last week in April, the produce of each being afterwards taken at three different cuttings, that of the space last cut exceeded the former in the proportion of three or two; and in one instance during a dry summer, the last crop-

ped space exceeded that which was cropped (first) as two to one. On land of the latter description care should also be taken to remove the heavy cattle early in autumn, for such ground being commonly of a loamy nature, and soon softened by a fall of rain, would otherwise be poached, and it is well known that in wet weather the hoofs of bullocks form holes which hold water, and thus render the herbage sour.

After the hay has been removed, the meadows are generally shut up for some weeks, until the grass again springs, when the stock are turned upon them in such proportion as they appear able to bear during the autumn; though light store stock are sometimes turned in immediately to crop such spots around the margins, and in the water furrows, as may have escaped the scythe. Other farmers, however, reserve it during winter, and then use it in the manner already stated in the preceding account of fogging. Some, also, live in the neighborhood of large towns, where they have the advantage of procuring manure, mow the land a second time, some time in the month of August; but in that case, they should be earlier than usual in the first crop. Cow-keepers, indeed, frequently cut it two or three times in the summer, as they find that rowen hay is of a soft, grassy quality, which occasions a greater flush of milk than that which is first mown, though it does not increase its richness, and they therefore cut the grass long before the seed has time to ripen. This frequent mowing, however, if it does not exhaust the soil, has a tendency to reduce the herbage; an injury to which new meadows are more exposed, than such as are old; and, therefore, land recently laid down to grass, should not be mown, but pastured with sheep or with very light stock, during the two first years, as the surer method of furnishing it with luxuriant herbage.

After the cattle are removed, the land is *bush-harrowed and rolled*. The bush-harrow spreads those small portions of mould which are thrown upon the surface by the earth-worms, and are, so far, an excellent dressing, when the separation is properly performed. This, however, is most commonly done by interweaving some strong but pliant branches of trees, hedge row thorns, through the open squares of a heavy harrow, which thus forms an efficient brush, and when drawn over the ground performs its duty perfectly during a short distance; but the branches, being pressed close, and worn by the motion, soon become so flat as not to have the effect of spreading the earth. The best mode is, therefore, to fix the branches upright in a frame placed in the front part of the roller; by which means they can be so placed as to sweep the ground effectually, and when worn can be moved a little lower down, so as to continue the work with regularity. In this manner the bush harrow can also be drawn by a single horse and driven by one man, instead of employing two horses and two drivers, as is the case when the land is rolled and harrowed separately. The object of rolling is merely to lay the land as smooth as possible, for the convenience of mowers, for it is thought by many farmers to retard the progress of vegetation; though there can be little doubt, that if the soil is porous and spongy, the roller will add to its firmness, and give a more substantial bottom to the sward. It has, indeed, been stated that the operation of heavy rolling has been found

to add six or seven hundred weight of hay per acre on the produce of the crop.

[From the Southern Agriculturist.]

BLIND DITCHES AND WELLS.

Mr. Editor—An admirable plan of draining in the West is after the French fashion, by which, whole fields can be worked with the plough, without the obstacles arising from open ditches.—Below culture-mark, a ditch is dug with the plough hoe and spade, and ‘eased off’ according to the declination required. Two pine saplings, or cypress poles, of equal length and similar thickness, are then laid about four inches apart in the ditch, parallel to one another: upon these two, saplings is laid another of the same length, and of thickness sufficient not to fall too deep between them, and obstruct the passage of water. The larger the vent the better. The whole is then covered with pine trash, and if that cannot be procured, any trash difficult of decomposition in water; then the earth is thrown in this, and the ditch filled up. The consequence will be this—the water finding its level from the surface of, and the circumjacent soil, percolates through the pine trash into the drain, and is carried off at the mouth of the drain into a main ditch. In this way, the coldest and sourest lands have been reclaimed and sweetened; and there can be no interruption to the working of the plough, inasmuch as the drain is below plough mark. These drains may be made as deep as is deemed requisite, with the largest pines, and of any length, if some care be had in packing the pine trash, and jamming the ends of the saplings close together. I have heard they will last for a century—that is, pine or cypress. In fact any other kind of wood would do nearly as well, for woods always in fresh water and not exposed to the atmosphere, take a long time to decay.

What excellent use could be made of the blind ditches in the flat lands of our State. How many acres now unavailable, would they not reclaim.—They may be made serviceable in every sort of land, whether rolling, level or broken, at a comparative expense of little consideration, when it is remembered, how often open ditches are cleaned out to let off the water. Nor are we required to take as much pains in digging those ditches, as we do with others,—get the declination and space for laying down the saplings, and packing the trash, and you may not heed nice work or the figure of the sides. On the fine cotton lands not sufficiently high, I would respectfully suggest their value—they could be used even on sandy lands, with good effects, so as to guard against a season of continued rains.

This plan of ditching is common in the West. It has its opponents, yet, a notion has occurred to me, which, when understood, will doubtless, at once, confirm their importance. Some contend, that they do very well to keep the land sweet, and carry off a light fall of rain, but, are inefficient in broken fields, where the water from the surface concentrates on the lowest parts. To obviate this, permit me, Mr. Editor, to propose the digging of blind wells. Suppose, sir, one is cultivating a field, elevated on the boundaries and declining to the centre, or to any other part, where the water concentrates—to drain off, not only the under, but the over surface run of water from this centre, I would dig a well, say four feet deep, (I am not

particular) the sides of which should be made of two inch, or one inch and a half plank, here and there bored with a three-quarter inch auger—the plank to be nailed outside of the four posts, that should be let into the well to constitute its frame work. *Into each side of this there should be an opening for the mouth of a blind ditch, two feet or more from the top of the well.* Around the sides of the well should be packed pine trash—the top of it should be a level with the earth, or an inch below, covered with plank, and bored as aforesaid, in such a manner, that the top could be taken off at pleasure. The water above the surface and below it, would run from every part of the field to this well; and should it bear sand along with it, the sand from its specific gravity, *will fall below the mouths of the blind ditches in the bottom of the well,* and the water would be carried off. The sand at the bottom could be taken out whenever necessary, and to obstruct the ingress of trash, straws, &c., a wire covering, at a trifling expense, could be nailed over the mouth of the ditch. That fall of water, which would seem to bear along with it sand in quantities so rapidly as to produce the choking up of the ditches, will accumulate in the well in bulk sufficient to force through the sand along with the flow of water to the outlets of the ditches. However, the choking of the ditches need not be feared, the incessant run of water at all seasons will keep them clean.

These wells should not be covered, if the plough be not used; if it be used, they should be made strong enough, to allow a horse to walk on them, without endangering his limbs.

In this way, Mr. Editor, I flatter myself the whole field could be drained and worked with the plough. I have supposed a case—the judgment of the planter will tell him under what peculiar circumstances of location of soil how far he should vary from the plans I have adopted in this imaginary field. The plan of making the blind ditch and well, may be estimated without referring its utility to the localities of any particular description of land—and should it serve your readers, or any one of them, I shall be amply repaid for the time consumed in the composition of this article.

Yours, with great respect, Sir,

C.

Remarks by the Editor.

Our correspondent is entitled to the merit of originality for his suggestion of blind wells—the ditches of which he writes, we have no doubt, could be turned to account by our long cotton planters, inasmuch as their delicate staple calls for the dryest soils. How far they would succeed in carrying off the water in low lands, more especially if level, we are yet incredulous. For broken lands they might do very well—but in the low country, where the fine cotton is cultivated with the hoe, we should prefer the open ditches. The blind might be used with great good effect between the open quarter ditches, to keep the soil dry; indeed we are pleased with this notion, and recommend its consideration to those interested. Should this plan of the blind ditch and well be sufficient to carry off the surface water, as our correspondent says, it would enhance the price of those fields which are cultivated with the plough

—particularly in sandy lands, interspersed with low bottoms, it would be the most effectual way of draining them, for open ditches in sand are too liable to cave in and choke after the lightest rains, or from the power of the winds. We recommend the whole article to the grave consideration of our readers.

[From the Quarterly Journal of Agriculture.]

Experiments in Feeding Cattle on different descriptions of Food. By Mr. Robt. Stephenson, Whitelaw, Haddington.

The cattle selected for this experiment were oxen rising two years old, and bred on the same farm. Their live-weights were ascertained at the beginning, during different periods, and at the end of the experiment. They were divided into three lots of six beasts each, and placed in open courts with sufficient sheds and stalls, and small mangers fitted up for corn and linseed cake. A correct account was kept of the weight of food consumed by each lot. Lot 1st were allowed linseed cake, bruised beans, and bruised oats, in addition to what turnips they could consume: and, for the last 24 days of the experiment, 20 lb. of potatoes per day were given to each beast. Lot 2d received the same allowance with the exception of linseed cake: and, for the last 24 days they got only 10 lb. of potatoes, each beast, per day. And the 3d lot were fed on turnips alone. None of the lots were allowed hay. The objects of this experiment are, first: to compare cattle fed partly on linseed cake with those which had none; secondly, to compare those fed partly on corn with those which had none; and, thirdly, to compare those fed solely on turnips with those which had different sorts of food. From former trials we are inclined to believe that cattle consume food in proportion to their weights when nearly alike in condition. We therefore resolved, in this experiment, to divide the 18 cattle, so as to confirm or refute this belief. They had been all kept in the same manner since they were calved, and were pretty much alike in condition, although varying considerably in weight. The six heaviest cattle, weighing in live-weight 486 imperial stones, were selected for lot first; the next six heaviest of 443 stones, constituted lot second; and the six lightest, made lot third, were 346½ stones.—These weights were ascertained on the 23d November, 1834, when the experiments began after the cattle had been in the court-yard from 20th September, 1834, and all fed on the same kind of food, namely, common white globe turnips. The white turnips given during the experiment were of good quality, raised with dung upon a rather stiff soil, and estimated about 20 tons per acre, their gravity on the 19th November, 1834, being 897.4 oz. per cubic foot. The Swedish turnips were also of good quality, grown on good clayey loam, 20 tons per acre by weight and measurement, their gravity being 1030 oz. per cubic foot on 19th November; but they had lost weight for bulk considerably by the 17th March following, when the last were raised from the ground, being then only 976.9 oz. per cubic foot. The white turnips used before the experiment commenced on 23d November, 1834, were raised with bone manure, and rather inferior in quality, being only on 19th November, 774 oz. per cubic foot. With

these preliminary observations, we will proceed to state the particulars of the experiment.

1. Food consumed by each beast of lot 1st—

13 cwt. 1 qr. 16 lb. white turnips from 22d November, to 3d December, 1834, ten days, being 150 lb. per day at 3d. per cwt.	£0 3 4
30 lb. bruised beans, for 10 days being 3 lb. per day at 13s. per boll, allowing 60 lb. the bushel,	0 1 7½
40 lb. linseed-cake, for 10 days, being 4 lb. per day at ¾d. per lb. or £7 per ton,	0 2 6
25 cwt. 3 qr. 20 lb. Swedish turnips, from 3d December to 25th December, 1834, 22 days, being 132 lb. per day, at 4d. per cwt.	0 8 7½
88 lb. linseed cake, for 22 days, 4 lb. per day, at ¾d. per lb.	0 5 6
66 lb. bruised beans, for 22 days, being 3d. per day,	0 3 7
69 cwt. 0 qrs. 21 lb. Swedish turnips, being 123 lb. per day for 63 days, from 25th December, 1834, to 26th February, 1835,	1 3 0¾
189 lb. bruised beans, for 63 days, being 3 lb. per day,	0 10 2½
126 lb. bruised oats, for 63 days, being 2 lb. per day, at 20s. per qr. say 42 lb. per bushel,	0 7 6
189 lb. linseed-cake, for 36 days, being 3 lb.* per day,	0 11 9¼
21 cwt. 2 qrs. 2 lb. Swedish turnips, being 100 lb. per day, from 26th of February to 22d March, 24 days,	0 7 2
480 lb. potatoes, for 24 days, being 20 lb. per day, at 6s. per boll of 4 cwt.	0 6 5
72 lb. bruised beans, for 24 days, being 3 lb. per day,	0 3 10¾
48 lb. oats, for 24 days, being 2 lb. per day,	0 2 10¼
72 lb. linseed cake, for 24 days, being 2 lb. per day,	0 4 6

Total cost of feeding one beast of lot 1st,

£5 2 7

2. Food consumed by each beast of lot 2d—

14 cwt. 1 qr. 24 lb. turnips, being 162 lb. per day, for 10 days, at 3d. per cwt.	0 3 7½
30 lb. bruised beans, for 10 days, being 3 lb. per day,	0 1 7½
29 cwt. 1 qr. 24 lb. Swedish turnips, being 150 lb. per day, for 22 days, at 4d. per cwt.	0 9 9¾
66 lb. bruised beans, for 22 days, being 3 lb. per day,	0 3 7
67 cwt. 2 qrs. Swedish turnips, being 120 lb. per day, for 63 days,	1 2 6
189 lb. bruised beans, for 63 days, being 3 lb. per day,	0 10 2½
126 lb. oats, for 63 days, being 2 lb. per day,	0 7 6

* It will be observed that the linseed cake has been reduced from 4 lb. to 3 lb. per day, because the cattle, on being allowed oats in addition to the beans, would not eat more than 5lb. of linseed cake per day.

24 cwt. 2 qrs. 16 lb. Swedish turnips, being 115 lb. per day, for 24 days,	0 8 2½
240 lb. potatoes, for 24 days, being 10 lb. per day,	0 3 2½
72 lb. bruised beans, for 24 days, being 3 lb. per day,	0 3 10¾
48 lb. oats, for 24 days, being 2 lb. per day,	0 2 10¼

Total cost of feeding one beast of lot 2d— £3 17 0

3. Food consumed by each beast of lot 3d—
11 cwt. 3 qrs. 14 lb. white turnips, being 113 lb. per day, for 10 days, at 3d. per cwt. £0 2 11½

22 cwt. 2 qrs. 10 lb. Swedish turnips, being 115 lb. per day for 22 days, at 4d. per cwt. 0 7 6¼

64 cwt. 2 qrs. 21 lb. Swedish turnips, being 115 lb. per day, for 63 days, 1 1 6¾

19 cwt. 2 qrs. 24 lb. Swedish turnips, being 72 lb. per day for 24 days, 0 6 6¾

Total cost of feeding one beast of lot 3— £1 18 7¼

Abstract of Cost of Keep.

Lot 1st, 119 days, £5 2 7 = 6.0348s. per w^k.

Lot 2d, 119 days, 3 17 0 = 4.5294s. per w^k.

Lot 3d, 119 days, 1 18 7¼ = 2.2712s. per w^k.

Improvements in live weight.

	LOT FIRST.		LOT SECOND		LOT THIRD.	
	Live weight in stones.	Improve-ment in stones.	Live weight in stones.	Improve-ment in stones.	Live weight in stones.	Improve-ment in stones.
Nov. 23, 1834	486	—	443	—	346½	—
Dec. 25, "	520	34	469	26	354½	8
Jan. 24, 1835,	554	34	499½	30½	375	20½
Feb. 25, "	582	28	528	28½	389	14
Mar. 23, "	594	12	544	16	395½	6½
Total im- provement in seventeen weeks.	1 08		101		94	

We have thus obtained data on which we can ascertain whether the foregoing methods of feeding of cattle can be practised without loss.

We regret that we are unable to present the amount of the beef, tallow, and hides, of all the cattle in this experiment when killed, having only obtained a correct account of four of them, which were slaughtered by Mr. M. Hutchison, Leith.—But as we have ascertained pretty accurately the dead weight of cattle, from a number of experiments on those of like condition and age, by multiplying the live weight by the decimal 571, we shall apply this rule to live weights in the above table, in order to ascertain the quantity, and estimate the value, of the beef produced; and we shall add 6d. per stone to the beef, being its increased value by feeding at the end of the experiment. The tallow is about the eighth part of a hundred of the live weight, or that multiplied by 08 will give the nett weight of the tallow. The hide is about the fifth part of a hundred of the

live weight, or that multiplied by 05 will give the nett weight of the hide; and the live weight multiplied by 28, will give the weight of the entrails and refuse.

Lot 1st, subjected to these rules, stands thus:

Improvement in live weight, 108
stones equal 61 stones, 10 lb. beef,
at 6s. per stone, £18 10 3¼
Increased value of the carcass of 339
stones, at 6d. per stone, 8 9 6

Increase of value from feeding, £26 18 9¼
Deduct cost of keep of each beast,
£5: 2: 7 by 6, 30 15 6

Loss on feeding lot 1st, £3 15 8¾
Being £12: 6: 0¾ per cent.

Lot 2d—Improvement of live weight,
101 stones, equal 57 stones, 10 lb.
at 6s. per stone, £17 6 3¼
Increased value of carcass of 310
stones, at 6d. per stone, 7 15 0

Increase of value from feeding, £25 1 3
Deduct cost of keep of each beast,
£3, 17s. by 6, 24 2 0

Profit on feeding lot 3d, £1 9 3½
Being £8: 10: 1 per cent.

Lot 3d—Improvement of live weight,
49½ stones, equal 28 stones 4 lb.
beef at 6s. per stone, £8 9 8½
Increased value of carcass of 326
stones at 6d. per stone, 5 13 0

Increase of value from feeding, £14 1 8½
Deduct cost of keep of each beast,
£1: 18: 7½ by 6, 11 11 7½

Profit on feeding of lot 3d, £2 11 1
Being £22: 1: 1 per cent.

Thus when Turnips alone were used, a profit of 22 per cent. was realized; when corn was used along with turnips, the profit was diminished to 8½ per cent; but when still more expensive food used, that is, corn and linseed cake, along with turnips and potatoes, a loss was sustained of no less than 12 and three tenths per cent.

Two pairs of the above cattle were selected and exhibited at the Local Show in this county, and gained the first prizes as the best beasts bred in this county. One pair belonged to lot 1st, and the other sold on the ground for £20 a-piece.—Their live and dead weights were respectively as follows:—No. 1, live weight 112 stones; dead weight of beef, 66 stones, 2 lb.; tallow, 8 stones, 10 lb.; hide, 5 stones 11 lb.; other offals, 32 stones 5 lb. No. 2, (from lot 2d,) live weight 100 stones; dead weight of beef, 58 stones, 6 lb.; tallow, 7 stones, 7 lb.; hide, 4 stones, 12 lb.; other offals, 29 stones, 3 lb. No. 2, live weight, 103 stones; dead weight of beef, 52 stones, 3 lb.; tallow, 9 stones; hide, 4 stones, 12 lb.; other offals, 26 stones, 13 lb. No. 4, live weight 109 stones; dead weight of beef, 62 stones, 4 lb.; tallow, 9 stones, 4 lb.; hide, 5 stones, 12 lb.; other offals, 31 stones, 8 lb.

We shall give another view of the subject by estimating the cost of producing a lb. of live weight.

Lot 1st cost 4.884 pence for every lb. of increased live weight.

Lot 2d cost 3.92 pence for every lb. of increased live weight.

Lot 3d cost 4.39 pence for every lb. of increased live weight.

We are not aware that any one has hitherto attempted to assign the separate agency of each kind of food in the production of live weight, when more kinds than one are employed in the feeding of cattle. Could this be done in a satisfactory manner, the question would at once be set at rest—which food was the most profitable? We have already stated the cost of producing 1 lb. of live weight in each of the three lots of cattle in this experiment, where it appears that the joint agency of turnips and corn is the cheapest of the three. But we are not prepared to say that the like result will be uniformly obtained, because, although observing the improvement in live weight of a considerable number of cattle on a given quantity of turnips to be, on an average, an increase of 1 lb. of live weight for every 90 lb. of turnips, under good management, and with good cattle, yet we have seen cattle which did not improve 1 lb. of live weight for every 1000 lb. of turnips. By this experiment, lot 3d only increased a lb. of live weight for every 116 lb. of turnips; and it will be observed, from what cause we know not, that for the first 22 days of this experiment, this lot increased only 8 stones. Now, for 46 days immediately preceding 22d November, 1834, the beginning of the experiment, these same six cattle increased 48½ stones, or 113 lb. each beast; while, from a trial made for 8 days, from 7th till 14th November, inclusive, they consumed 160.85 lb. each per day of common turnips, (white globe,) which gave only 65.47 lb. of turnips to a lb. of increased live weight. But, avoiding lengthened details of other experiments, we will assume 90 lb. of turnips, as being equal to the production of 1 lb. of increased live weight, and from this datum, endeavor to ascertain the agency of each different kind of food employed in the feeding of lots 1st and 2d. We shall begin with lot 2d, and divide 6 times 15.226, the quantity of turnips consumed by this lot by 90 and the quotient is 1015 lb. of live weight, as having been produced from the agency of turnips. Lot 2d, also, consumed 1440 lb. potatoes. We say that 40 lb. of potatoes will yield 1 lb. of increased live weight, the result will therefore be 1440 divided by 40, equal 36 lb. live weight as having been produced from the agency of potatoes; therefore 1015 add 36 equal 1051, and the remainder, 363 lb. as having been produced by the agency of corn; which make up 1414 lb. the total increase of live weight.

Lot 1st, by the same rule, stands thus:—
14,563 by 6, equal 87.378, divided by 90, equal 970 lb. live weight, by the agency of turnips.
480 by 6, equal 2880, divided by 40, equal 72 lb. of live weight, by the agency of potatoes.
531 by 6, equal 3186, divided by 8.77, equal 363 lb. of live weight by the agency of corn.
389 by 6, equal 2334, divided by 21.81, equal 107 lb. of live weight by the agency of linseed cake.
The cost of producing a pound of increased live weight by the above data is—
90 lb. of turnips at 4d. per cwt. equal 3.2142 pence.

0 lb. of potatoes at 1s. 6d. per cwt. equal 6.4285 pence.
 8.77 lb. of corn at 3s. 3d. per bushel of 60 lb., equal 5.7 pence.
 21.81 lb. of linseed cake at $\frac{3}{4}$ d. per lb., equal 16.3575 pence.

(To be Continued.)

APPLE MOLASSES.

There is many a good housewife, who has more faith in her own experience, than in the science of chemistry, that knows not the value of Apple Molasses; but still believes it to be the same kind of tart, smoky, worthless stuff, that has from time immemorial, been made by boiling down cider. It is not within my province, at this time, to attempt to convince such, that there is a chemical difference, though it might easily be shown, that they are almost as different as sugar and vinegar. I would, however, invite them to lay aside their cider this year, and try the plan of boiling down the juice of the apple that has not been exposed to the air by grinding and pressing.

Last autumn, I placed a number of bushels of Wetherill's sweeting apples in two large brass kettles, with water just sufficient to steam them; when they had boiled soft, I turned them into a new splinter basket, containing some straw, and placed on them a barrel head, and a heavy weight. The juice was caught in a tub. This was repeated until I had juice enough to fill the kettles, when I commenced boiling it down, and attended to it strictly, frequently skimming it, till it became of the consistency of cane molasses. The native acids of the fruit imparted a peculiar flavor, otherwise it could hardly be distinguished from the syrup of the cane. It was used in my family for making sweetmeats, for sweetening pies, for dressing on puddings and griddle cakes, and a variety of other purposes. The cost of making it is very trifling, and the means are within the reach of every farmer.—*Ohio Farmer.*

PRESERVING POTATOES.

Wherever practicable, potatoes, should be dug during dry weather, as the earth is then less liable to adhere to them, and they soon become dry. They should be exposed as short a time as possible to the light, as it always injures their quality for whatever use they are intended. Hence a coarse blanket or boards should be employed to cover them in the heap or wagon, during the time that they necessarily remain in the field. Exposure to the light for any length of time, even in a cellar, greatly injures potatoes; the bins therefore in which they are kept, should be so constructed, as to exclude it entirely; in short, they should be kept in a state similar to that before they are dug,—that is, secure from air and light, with a slight degree of moisture to prevent withering, and a temperature so low as to keep them from vegetating. The difference in the quality caused by good and bad keeping is very rarely appreciated.

One of the best methods of keeping them in cellars, is to construct a bin, put sand in the bottom, line the sides and ends with smooth and handsomely cut sods, and when the potatoes are put in, cover them with sods and beat them down closely. In this way, all the above requisites

may be obtained. Potatoes intended for constant family use, may be kept temporarily in barrels and covered with sand.

When they are buried in the field, a dry piece of ground should be selected, which shall be at all times entirely free from surface water. They are to be covered, first, thickly with straw, and afterwards with several inches of compact earth. A second *thick* coat of straw, and another of earth, is then to be applied. The straw for the other, or second coat, should be long and straight, such as has been thrashed with a flail, and placed in a position so as to throw the moisture and wet from the peak down the side, like the thatching of a roof. This keeps the inner coat of earth dry, and effectually prevents the water from penetrating the heap. The earth for the outer coat, should be fine and compact so as to throw off the rain. If these directions are carefully attended to, there will be no danger of losing potatoes by freezing and rotting, and they will keep in the best condition till spring.—*The Genesee Farmer.*

CONSTRUCTION OF ICE HOUSES.

As the present is a suitable season for attention to ice houses, a few short directions relative to their construction may not be unacceptable.

The most usual method is to place the apartment for containing the ice, below the surface of the earth. When this is done, the pit should be 8 or 10 feet wide, and about 12 feet long, and should be sunk to a depth of at least 8 feet. Posts, made of 4 inch scantling, are placed round it, at a few inches distance from the walls of the pit: on the opposite sides of these, boards are nailed horizontally, thus leaving a space between the two partitions thus formed, and another between these and the earth around them. These spaces are to be filled with the exhausted bark of tan pits after it has been made dry. Similar spaces, made beneath the floor, are to be similarly filled.—These walls, thus constructed, should project a foot or two above the ground, and should be surmounted by a very steep roof, also made double, the intervals between the boards being filled with powdered charcoal. It is to be painted white outside, to prevent the absorption of the rays of the sun. The steepness, and consequent height, of the roof, affords a convenient passage into the house through a triangular door at one end.

The pit is divided into two apartments by a double partition, filled with tan. One of these, which should be the largest, and most remote from the door, is for the reception of the ice. The other is employed as an entry, at the *bottom* of which is a door made also double and filled with tan, through which the ice is withdrawn as it is needed for use. This entry may be employed for keeping butter, milk, &c., during the heat of summer. The space above the ice is to be filled with dry straw, after the ice is deposited.

It is not essential that the ice house be made beneath the surface of the ground, as many are now constructed entirely above, and answer the purpose perfectly. But in this case the walls of tan should be much thicker.

The ice for filling may be drawn any time during winter, but it should not be deposited except during the coldest weather. It should be cut into regular blocks and as closely packed as possible,

all the interstices being filled with pounded ice.—*Ibid.*

DEEP AND SHALLOW PLOUGHING.

Erroneous conclusions are sometimes drawn, on this subject, from very partial observations. Deep ploughing in soils naturally shallow, always necessarily throws up much of the unproductive subsoil. Where the land is thus ploughed but once, this subsoil is thrown uppermost, hence the crop is often very deficient. Where the ploughing is repeated, the upper, fertile soil, and the subsoil become mixed, consequently the soil, though deeper, is less fertile than at first; and a diminished crop is still the result, especially in case of those crops whose roots are confined chiefly to the surface. Experiments, such as these, have induced the belief with some, that deep ploughing is in all cases useless, if not positively detrimental.

But the error of this belief is proved by the fact, that with nearly all crops, the heaviest are obtained from deep fertile soils. Where the quantity of manure to be applied to land is limited, it will generally produce a much greater effect on the crop if not ploughed deep beneath the surface. Soils, naturally shallow, should therefore be *gradually* deepened by successive ploughing each year, during which the quantity of manure applied should be such as to preserve the original fertility.—*Ibid.*

HUSSEY'S HORSE MOWING MACHINE.

We insert with pleasure the following testimonials in favor of the above machine. Believing that every thing which tends to save labor, and consequently to cheapen it, is of the very first importance to the agricultural interest, we at all times are gratified to see implements of approved construction and utility introduced into use, and our gratification is always enhanced, when new inventions are submitted, as is the case in the present instance, to the test of gentlemen farmers of long experience and elevated standing.

MR. HUSSEY—

Sir—Your Wheat Cutting Machine was used by me in securing my clover seed; with one man, three boys and two horses, we cut about 12 acres per day. The operation was in every respect complete—the clover was well cut, and deposited in proper sized heaps, and no raking required, further than to remove the heaps of cut clover from the track of the machine; the whole operation was easily performed by the hands and horses. In the operation of cutting wheat, I followed the machine for about two acres in the field of Mr. John Stonebreaker, during the late harvest, and can vouch for the operation in securing his wheat in the manner described by him in his publication.

The late improvement made by you in your machine has added greatly to the beauty and facility of its operation.

Yours, respectfully,

F. TILGHMAN,
Rockland.

Sept. 15, 1837.

We the subscribers certify, that we have seen Mr. Hussey's wheat cutter in operation, in the clover field of Col. Tilghman, and fully agree

with him in the description given, of the operation of the machine.

WILLIAM H. FITZHUGH,
JOHN R. DALL,
THOS. EMORY, East. Shore, Md.
WILLIAM HOLLYDAY,
THOMAS E. TILGHMAN,
RICHARD T. HOLLYDAY,
FRISBY TILGHMAN, Jr.

Sept. 15, 1837.

From the Hagerstown Torch Light.

Mr. Bell—Dear Sir: Will you please give this a place in your paper for the benefit of wheat growers. As the subject is of public interest it is hoped that other papers will circulate it through the grain growing districts of the country.

I procured a Reaping machine this summer of Mr. Hussey, the inventor, which I have used thro' my wheat harvest. It was in constant use every day, and performed its work to my satisfaction, and far better than I had any expectation of when I first engaged it of Mr. Hussey. When the ground is clear of rocks, loose stones, stumps, &c. and the grain stands well, it cuts it perfectly clean, taking every head, and if well managed scatters none, but leaves it in neat heaps ready for binding. When the grain is flat down, the machine will of course pass over it; but if it be leaning, or tangled only, it is cut nearly as well as if standing, excepting when it leans from the machine, and then if the horses are not in a trot, it will be very well cut. But in cutting such grain much depends on the expertness of the hand, who pushes off the grain, in making clean work, and good sheaves. I found the machine capable of going through any thing growing on my wheat land, such as weeds and grass, no matter how thick.

After my harvest was over, I cut my seed timely, with the same neatness, and ease, that I did my grain. As respects the durability of the machine, I can say this much for my machine, that not the least thing has given out yet; it appears as strong as a cart; and but little liable to get out of order, if well used. I was advised by Mr. Hussey of the necessity of keeping some of the parts well greased; this I have punctually attended to, and no perceptible wear yet appears, beyond the ordinary wear of any other machinery.

It is immaterial to the machine whether the speed be a walk, or trot; though a walk will make the most perfect work. My speed was a common walk, but a trot is sometimes necessary to counteract the effect of a strong wind when blowing from behind, in order to incline the grain backwards, on to the platform, to make good bundles. A quick walk is required to make good work in very short and scattering grain. The machine performs well, up or down hill, provided, the surface be not too broken. By its compactness and ease of management, rocks, and stumps too high to be cut over, can be easily avoided.—Although a rough surface is very objectionable, yet I have cut over very rocky ground with no material difficulty. I can say one thing which to some may appear incredible, but it is not the less true, the cutters of my machine have not been sharpened since I have had it; nor have I yet seen any appearance of a need of it in the quality of its work. How many harvests a machine would cut without sharpening is hard to say, I

propose sharpening mine once a year only. I have used two horses at a time in the machine, and sometimes changed at noon; they worked it with ease, the draught being light. I took no account of what I cut in any one day, with this exception; in less than half a day I cut six acres, and was often detained for want of the requisite number of binders; by which much time was lost. My machine being something narrower than those generally made by Mr. Hussey, I could cut but about one acre in going two miles, this at the moderate rate of two and a half miles per hour would amount to twelve and a half acres in ten hours, and at four miles per hour, a speed at which the work is done in fine style, the amount would be twenty acres in ten hours. I should judge my quantity per day to range between ten and fifteen acres, yet I am decided in the opinion that I can cut twenty acres in a day, of good grain, or good ground, by the usual diligence of harvest hands, with a little increase of my usual speed, and a change of horses.

Two hands are required to work the machine, a man to push off the grain, and a boy to drive, besides a number of binders proportioned to the quantity cut. As the machine can be drawn equally fast in heavy or light grain, the number of binders is necessarily increased in heavy grain, except an additional speed be given in light grain. Under every circumstance the number of binders will vary from four to ten; and when the usual care is practised by the binders, there will be much less waste than in any other method of cutting.

I speak with more confidence of the merits and capacity of Mr. Hussey's reaping machine from the circumstance of having pushed the grain off myself for several days, in order to make myself practically, and thoroughly acquainted with it before putting it into the hands of my laboring men. The land in this county being rather rocky, and uneven, it is hard to say what may be the ultimate advantage of these machines to our farmers, but from what little experience I have had I am resolved not to be without one, or two of them. I can therefore recommend the machine with confidence, especially to those who have a large proportion of smooth ground in cultivation. It is undoubtedly a labor saving machine, and worthy of their attention.

JOHN STONEBRAKER.

Hagerstown, Aug. 15, 1837.

WEIGHING CATTLE.

The Graziers of Virginia are about to memorialize the corporate authorities of Baltimore, Washington, Georgetown and Alexandria, praying the establishment of some regular mode in which the cattle sent to those markets shall be weighed. They complain that under the existing practices, there are no means of ascertaining the precise value of the animals at the time of sale. The manner in which the evil complained of is to be remedied is of course left to those whose legislative action is requested, at the same time that two modes are proposed as being efficacious. One of these plans is to appoint weigh-masters and erect scales of sufficient power, where the bullocks may be weighed alive, subject to such tare as experience may show to be equitable, or as may be

agreed on at the time of sale. The other course is to appoint officers who shall establish a slaughter house, and to whom every average bullock shall be handed over to be killed and weighed, and whose further duty it shall be to weigh all bullocks sold by weight when the contract requires that all shall be weighed.—*Fincastle Democrat.*

ITALIAN SPRING WHEAT.

The subscribers daily expect to receive about 100 barrels of Italian Spring Wheat, raised near Rome, N. Y. by J. Hathaway, esq. from imported seed.

This wheat was raised by Mr. H. particularly for seed grain, and the greatest care has been taken to prevent mixture from other sorts. The article is perfectly clean and put up in tight barrels, which hold $3\frac{1}{4}$ bushels each. Those desirous of being supplied with this desirable article will make early application.

The price will be \$5 per bushel, the cash to be paid on delivery of the grain. ROBT. SINCLAIR, Jr. & CO.

Light, near Pratt street, Baltimore.

oc 24

3t

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, Jr. & Co.,
Light, near Pratt-street, Balt.

Sept. 10.

3t.

ROBERT SINCLAIR'S NURSERY, AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, English Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, Jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

oc 17 5t

ROBERT SINCLAIR, senr.

GEESE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnett's stock, BOTH PURE WHITE.

oc 17 5t

ROBERT SINCLAIR, senr.

CONTENTS OF THIS NUMBER.

Mulberry culture—advice to wheat growers—advice to gather potatoes, beets, &c.—notice of the closing of sales of spring wheat—harvesting beets—smut in grain—insects in wheat—culture of mangel wurtzel—the crops—on meadow land—blind ditches and wells—experiments in feeding cattle—to make apple molasses—preserving potatoes—construction of ice-houses—on deep and shallow ploughing—Hussey's horse mowing machine—weighing cattle—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Mo

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel	96	98
White,.....	"	90	92
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana—Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"	8 50	
SuperHow. st. from stores	"	8 25	
" " wagon price,.....	"	8 25	
City Mills, super.....	"	8 75	8 50
" extra.....	"		
Susquehanna,.....	"		
Rye,.....	"		
Kiln-dried Meal, in hhds.	hhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	8 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 0
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic,—; blk.	"	3 50	4 00
OATS,.....	"	33	34
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	82	85
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 85	1 90
Red, best.....	"	1 80	1 83
Maryland inferior	"	1 10	1 40
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hhds.....	"		37
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 50	
To Wheeling,.....	"	1 75	
Wool, Prime & Saxon Fleeces,.....	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,..... do.....	"	10½	10½
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	14½	Farmers Bank of Virgi. 14½
Other Branches,.....	do	do	Bank of Virginia,..... do
MARYLAND.			Branch at Fredericksburg, do
Banks in Baltimore,.....	par	½	Petersburg,..... ½
Hagerstown,.....	½	1½	Norfolk,..... 1½
Frederick,.....	do	½	Winchester,..... ½
Westminster,.....	do	1½	Lynchburg,..... 1½
Farmers' Bank of Mary'd, do	do	10	Danville,..... 10
Do. payable at Easton,.... 1	do	½	Bank of the Valley,.... ½
Salisbury,..... 2 per ct. dis.	do	do	Branch at Romney,.... do
Cumberland,..... 3	do	do	Do. Charlestown,.... do
Millington,..... do	do	1½	Do. Leesburg,.... 1½
DISTRICT.			Wheeling Banks,.... 3½
Washington,.....	do	6a7	Ohio Banks, generally 6a7
Georgetown,.....	Banks, ½ p.c.	5	New Jersey Banks gen. 5
Alexandria,.....	do	3a4	New York City,..... 3a4
PENNSYLVANIA.			New York State,..... 3a4
Philadelphia,.....	½	3a3½	Massachusetts,..... 3a3½
Chambersburg,.....	1	3a3½	Connecticut,..... 3a3½
Gettysburg,.....	do	3a3½	New Hampshire,..... 3a3½
Pittsburg,.....	3½	3a3½	Maine,..... 3a3½
York,.....	1	3a3½	Rhode Island,.... 3a3½
Other Pennsylvania Bks. 4	do	5	North Carolina,.... 5
Delaware [under \$5].... 6	do	8a10	South Carolina,.... 8a10
Do. [over \$5]..... 2	do	do	Georgia,..... do
Michigan Banks,..... 10	do	12	New Orleans,..... 12
Canadian do..... 10	do		

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

BAKFELL RAMS.

For sale 6 Bakewell Rams, one of which was imported. The prices are as follows, viz: the imported Ram \$150, No. 1. of the native bred, \$100—No. 2, \$75; No. 3, \$50; Nos. 4 and 5, 35 dollars each. The five latter rams are one year old, in fine condition, and beautiful specimens of their peculiar and much admired long-wooled breed. As a proof of their superior quality it may be well to state that two brothers of the latter five were sold at the great Whitaker sale recently held in Philadelphia, for \$100 each, and a third one since for the same money at private sale. Applications to be addressed in writing to

JOHN BARNEY,
Philadelphia.

Oct. 10.

3t.

DURHAM & AYRSHIRE CATTLE

The subscriber is authorised to sell the following superior Cattle:

Montezuma, an improved Durham short-horned bull, a light, or fashionable roan. He was imported by Rezin D. Shepherd, Esq. in March, 1835, for whom he was purchased from Mr. Page in the county of Durham, England. Montezuma was got by Wharfingdale, dam by Magnum-bonum, g. d. by Priam: he was calved 30th March, 1833.

As an evidence of his superior powers in the perpetuation of his species, we would state, that he is the sire of Nancy Thompson and Hampton, calves now owned by Mr. George Beltzhoover. Nancy Thompson, was calved in March last, and now weighs 527 lbs. Hampton was calved 4th May last, and now weighs 380 lbs. Indeed all the calves of Montezuma, which we have seen, are remarkable for their extraordinary size and fine points:

A short horn improved Durham bull calf, 3 months old, got by Neptune, he by Orozimbo out of a full-blooded Durham heifer, 2 years old, the dam of which was imported by R. D. Shepherd, Esq. and sold to the Hon. Hy. Clay.

6 Ayrshire calves, 3 males and 3 females, from 2 to 8 months old. These calves are all out of cows imported by R. D. Shepherd, Esq. selected by his Agent from the best herd in the kingdom of Great Britain. The mothers of two of those calves, with their first calf, respectively, gave 20 and 24 qts. of milk per day, when fresh.

The Ayrshire breed of Cattle is justly considered the best dairy cows in Scotland, they are of medium size, hardy of constitution, docile in disposition, easily kept, and deep milkers, yielding as much milk and butter, weight considered, as any other variety.

Letters post paid to the subscriber will meet with prompt attention.

EDWARD P. ROBERTS,

Editor Farmer and Gardener, Baltimore, Md.
sep 12 4t

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work a gain, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoeing. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work,—a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdington & Co's. fronting Grant and Ellicott-sts. in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 27.

BALTIMORE, MD. OCTOBER 31, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: OCTOBER 31, 1837.

REMOVAL.

The office of the "Farmer and Gardener" is removed to the North West corner of Baltimore and North-sts., over the Patriot office, opposite the Franklin Bank, and near the Post-office.

FLOUR.

It is estimated, says the Essex Register, that the people of the United States require for their sustenance 18,000,000 barrels of flour annually. On the ratio used by the U. S. Army, it would be 24,000,000, but this is too large for the whole population, and probably 18,000,000 is a near approximation to the actual consumption. As there was planted in the United States about 8,000,000 of acres of land in wheat, intelligent men estimate the crop for 1837, at 25 bushels to the acre, which at 80 cents the bushel will be worth \$160,000,000. Estimating 5 bushels wheat to a barrel of flour, this will give 40,000,000 of barrels, or a surplus for export, or to remain in barns of 22,000,000 bls. At the least calculation there is no doubt wheat enough raised the present season, to supply the country two years, and if it is not monopolized by speculators, or the grain kept back by the growers, the price of flour ought the ensuing winter not to exceed \$5 per barrel, the price of 1832. In the spring of that year, good superfine flour was sold in Philadelphia for \$3 25 per barrel.

We cut the above article from the list of items in the National Gazette with the view of making a few remarks to correct what we conceive to be an over-estimate of the wheat product of the past season. The Essex Register says it is estimated that there were eight millions of acres of land sown in wheat, and that the yield was 25 bushels to the acre. The writer, we presume has but little practical knowledge of farming, or he never would have ventured upon an assertion so wide of the truth. For his information we would tell him, that where there is one farm which produces 25 bushels to the acre there are 99 that do not yield a moiety of that quantity. There are to be

sure, in all of our wheat growing states, lots and fields which in good years yield that amount to the acre, but they are so sparse that it is but deceiving the judgment to make such products the basis of any calculation, and especially when it is made the *average* product of 8,000,000 acres.—We are not certain that that quantity of acres was sown in wheat last fall, nor do we concede to it our belief in its accuracy; for we do know that so far as our personal knowledge extends, and we have taken some pains to advise ourself, a greatly reduced quantity was seeded last fall than in former years, and for the following reasons—first, because from the great injury to last year's crop, arising from various causes, good seed wheat was not to be had; and *secondly*, from the succession of several years of *bad* crops farmers were fearful of risking their usual sowings. On the eastern shore of this state, a decided wheat district, not more than one-fourth the usual quantity was seeded, and so far from the *average* product being 25 bushels to the acre, we are certain it did not amount to *one-third* that quantity. There are to be sure many intelligent and enterprising farmers in that quarter, who have within the last few years so improved their estates as to produce greatly above the *average* we have set down; but when we speak of *averages* we mean what we say, and do not, to back our calculations, or favor our theories, mistake a maximum for an average. We doubt much whether the acreable product of wheat in the United States in 1837 exceeded 10 bushels, and if so the figures and deductions of the Essex Register are sorely at fault: and while we are incredulous upon this point, we are equally so upon the gross amount of acres engaged in the wheat culture; but be our incredulity as to the latter well grounded or not, we feel confident in our assertion that the *average* product of wheat in America in 1837 did not exceed 10 bushels to the acre, which, if we take 8,000,000 as the number of acres in wheat culture, would give 80,000,000 bushels as the aggregate product, which at 5 bushels of wheat to the barrel of flour would be 16,000,000 barrels as the entire product, and that, according to the Essex Register, is 2,000,000 barrels less than the quantity consumed annually in the United States, a vastly different result to

his own, as he makes an *excess* of 22,000,000 of barrels. The calculation of the Essex Register seems to take it for granted that wheat flour is the only kind consumed; for although that is not expressly stated to be the fact, it is obvious that such is the view he has taken of the subject; and here again is a most lamentable mistake, for the great majority of the American population chiefly subsist on corn-bread. When we speak of there being less flour raised, by 2,000,000 of barrels, than will meet the home demand for consumption, we do not mean to affirm that any deficiency will actually occur; but having assumed what we considered as an *average* acreable product, a much nearer approximation to the truth than his, we felt ourselves bound to show the results according to our views. We believe that there has been more *wheat* raised than will be consumed in America, because from the large crops of corn raised, and the reliance upon that article by the great body of laborers for sustenance, the demand upon the former will be much less than it would have been had the corn crop failed.

There is one fact in relation to the supply of bread-stuffs which it seems but right to mention in connection with this subject. The aggregate quantity of *rye* raised is so much less than that of former years, while the quantity of *oats* is so much greater, and consequently the price comparatively so much less, that we have been informed that the distillers are generally using *oats* instead of *rye*, in combination with corn in distilling whiskey. If this practice should prove to be as general as represented to us, the low price anticipated for *oats* will not be realized, for if they should be substituted for *rye* the consumption will be so immense from that source, as to more than counterbalance any effects of depreciation arising from excess of production.

From the reasons we have stated, it will be obvious to the reader that we do not anticipate the prices of the winter and spring of 1832 to prevail during the winter of 1837, though we believe they will be less than those that ruled in 1836, and up to this period in 1837.

The farmer who wishes to succeed well in his business, must always be busy, but never suffer himself to be hurried.

MR. COKE, OF NORFOLK, ENGLAND.

The subjoined description of the farm of this distinguished English farmer will be read with interest by every agriculturist in our country.

[From the Boston Transcript.]

MR. COKE, THE NORFOLK FARMER.

It was mentioned yesterday, as one of the items of intelligence from England, that the venerable Mr. Coke, the early and staunch friend of the United States when they were struggling Colonies, had been elevated to the Peerage by the Queen Victoria, by the title of Viscount Coke and Earl of Leicester. By the same packet that brought us this intelligence, we received the following opportune letter from our English correspondent:

HOLKAM HALL, June, 1837.

This place, which is near Wells, and within view, like that town, of the northern coast of the county, is renowned throughout England at least, as the seat and especially as the farm of old Mr. Coke, the Father of the Farmers of Norfolk; and I am happy, therefore, to have enjoyed an excellent opportunity of seeing the estate. I shall not probably find in Great Britain, a better specimen either of the style of life of a "good old country gentleman" of this realm, and of the ancient school, or of the management of a first-rate practical proprietor's estate. Let me begin by giving you some idea of the latter; premising that this is the same Mr. Coke who moved, in the House of Commons, the discontinuance of the American war of '75, and who, having carried it in that excited body, by a majority of one, was himself, at the suggestion of his friend Mr. Fox, appointed at the head of a committee to take up an address to his majesty George III., in pursuance of the vote. This he did in his farmer's dress, with his white top'd boots and frock on, for that was the costume. Every American must respect the old man for this achievement, and they will not like him less to know, that every day at his table, during the barbarous war, he was accustomed, as he often declares now, to drink the health of Gen. Washington, as the greatest man in existence.—This liberal spirit has always distinguished Mr. Coke, and he began his career in Parliament with the war itself, and remained in it near 60 years. Were he still a member, which his age [82] now prevents, he would be by many years the "Father of the House."

Well! now for the estate; and first, merely as a farmer's. The land here is about 3,500 acres; nearly the whole of it is enclosed by a neat high brick wall, extending a circuit of 10 miles. This comprises the plantations of wood, and a beautiful "lake," as they call it, both which are wholly artificial. The latter is the finest artificial water I ever saw, and quite deceived me. Nothing could appear more originally rural than its borders, which are completely overshadowed with forests, and as wild altogether as if I had discovered them and the lake itself, in the depth of some solitude of Michigan. All these woods have been planted. The estate is plentifully sprinkled over with various species of trees, in copses, in acres of forest, and in avenues; and all is artificial work, and yet that art is so perfect, that the warmest lover of

nature cannot desire more. Instead of a mere park, in one body, it is as one wants it—every where an ornament and a shelter—over hill and dale—but no where in excess, or yet in the way of the farmer. Immediately around the mansion, (of which hereafter,) indeed, are only gardens, walks, and a wide extent of velvet lawns on every side; but even these latter are marked with the owner's scheme of the practical. It is not only the pheasant I see shuffling about here in the cool shades. It is not alone the graceful deer that browse and bound along these soft lawns. These are a charm to the eye, and I like the taste which allows them this sweet free range, and which saves the poor beautiful creatures from all harm. Here are the woods too. As I rode through their long winding lanes to-day on horseback, the air was filled with the perfume of forest flowers, and with the chirping and fluttering of birds. The yellow-hammer whirled away on his gay speckled wings, as we trotted up to him; the shining blue jay glanced "like a javelin by;" and "the woodpecker tapped at the hollow beach tree."

I might have dreamed myself in woods of Paradise, with all their "starry depth of flowers," ere man had sinned: only at intervals we came on the edge of the lawn, or the arable land, and the mansion, with its cultivated splendor soon drove that vision from my soul. Here, however, is nature in abundance. The place is rich with the mere luxuries of nature; richer than ever Roman table was with luscious luxuries of art. And yet, I say, the whole is marked with utility, and there is such an abundance of the practical, that the luxurious is only enough to relieve the monotony, and to refresh the eye and the spirit that may sometimes weary even of the continual sight or supervision of such a spectacle or management as this. The remoter lawns are spotted with little flocks of sheep, of which over 3,000 are kept on the place, of the famous South Devon breed. One meets also in the pastures, those fine, sleek, bright looking cattle, browsing in herds. There are more than 300 of them, including an immense dairy, besides Scotch cattle. Beyond the lawns, one gets at once into the cultivation, and a ring of this, skirted and sheltered here and there with avenues and copses of trees, encircles the whole estate. I rode along the hedge of a field of 130 acres of barley, in one place. In another were 60 acres of wheat; and there were also two fields of peas of 25 and 27 acres.

The arable land is divided about equally between these grains, turnips and grass, which four crops, sometimes having grass for two seasons, constitute the routine of the succession of tillage on the same ground. There are in cultivation at present about 430 acres of wheat and barley each, and in fine condition. The head farmer told me that 30 bushels an acre is rather an indifferent crop, and that 40 and 50 are more "the right thing." It must be borne in mind, when I say this, that Holkam has been completely *made over* by Mr. Coke. When he succeeded to the estate, it was a mere desert. There were no trees here even, and it was hardly believed the land would let them grow. Mr. Coke says the rabbits were the only creatures who *could* live on it, and they were starving! Now what a triumph is this! Go with me to-day into this village of Holkam, which all belongs virtually to the estate, and lives

by it in one way or another. Here are 500 persons probably, besides those sent off, well provided for elsewhere. Their cottages are a curiosity of rural neatness and comfort.

Little gardens surround them, and flowers hang out of the windows and climb over the door-way. Some 150 persons are employed on the farm alone. Then in the gardens, the light acres of which are surrounded with a wall 1500 yards long and 14 feet high, are perhaps 40 more; in the brick yard, 20; in the blacksmith's shop, 10; and some wheelwrights and game keepers, I dare say; and a little army of servants of course, for in the mansion, when the family are here, 20 females alone are employed. The women do some work also on the farm; such as weeding the grain, which, as well as the peas, and in fact all the crops, is *drilled*. I saw 20 women in one field, weeding. Beyond that, and outside of the walls of the regular estate, we came to a "*little bit*" of a plantation of only 600 more. Here they were hard at work. In one field where turnips were sowing, all the processes went on at once. There were 20 men and boys spreading manure out of five or six carts drawn by 3 horses each, (of which there are 100 on the place;) 5 or 6 ploughs drawn by 2, who ploughed without a driver; then 2 cast-iron round rolls, by 2; 3 or 4 harrows, by 1; 2 drill machines, self-sowing by 2; and then the harrow again, brought up the rear. Horses were used chiefly, but some oxen also, and these were Devon. I noticed their walk, which is brisk and light as that of the best horse. They are not large, but snug, sleek and strong, with small eyes and short horns, a boy rides on the back of one of them, and guides them with a slight bridle, talking to them as our farmers do to a horse. Two of these creatures drew a water cart into a pond nearby, where, by a plug in the bottom, it was filled in half a minute. I ought to speak of the alms-house for the old, and the schools for the young, and of the farming system more in detail, but there is no room. I will only add, that young farmers come here to learn the science. I saw four of them riding over the grounds this morning, who are under the care of the manager. The whole place is considered a model of both the science and art of farming.

REPORT

Of the Committee to award Premiums at the Cattle Show and Horticultural Exhibition, on the 4th inst., in Delaware.

The committee on neat Cattle report

That they award the premium to P. Reybold, for his Durham Bull, "Tom."

There were also several very superior animals on the ground owned by E. Tatnall, S. Canby, B. Webb, W. R. Sellars, Dr. Thomson, W. Chandler, and J. W. Tatum.

They award the premium to S. Canby, for his Durham Cow, "Hetty."

B. Webb, P. Reybold, George Platt and Henry du Pont, had some very fine animals that gave evidence of good breeding, and many of them very superior for the pail.

They award the premium to George Platt, for his Durham heifer.

W. R. Sellars, S. Canby, R. Topham, P. Reybold, B. Webb, and H. Du Pont, exhibited some

animals of superior points; R. Topham's heifer showed very fine appearance of a deep milker, and S. Canby's heifer "Betty" was much admired for her fine size and figure.

They award the premium to S. Canby, for his Durham heifer calf "Alice."

Also the premium to B. Webb, for his bull calf "Independence."

The beautiful animal "Maxwell" recently imported and brought here by a company of gentlemen was also exhibited, and attracted universal admiration. He is a perfect model of the improved D. Short-horn breed; and affords an opportunity seldom offered to our farmers to improve their stock; he is kept at B. Webb's farm near Wilmington.

Mr. George Platt had an imported Durham cow that was a very superior animal.

There were also many other animals on the ground of good quality, and the committee were much pleased to see a great improvement on the exhibition of last year, both in the quality of the stock and the number of persons in attendance, showing an increasing zeal in the great cause of agriculture.

The committee on oxen reported that after much difficulty in deciding on several remarkably fine yoke of oxen that were exhibited, they had awarded the premium to S. Canby.

The committee on Horses award the premium for the best stallion to Thomas Massey, jr. for his horse *Billy*, four years old, a fine bay, sired by *Bellfounder*, out of his mare *Portia* by *Messenger*.

They award the premium for the best Colt under 3 years old, to Henry Du Pont, for his two year old iron grey filly, unnamed, dam *Helen Mar*, half sister to Gen. Irwin's *Lara*, sired by *Eclipse Lightfoot*.

The premium for the best brood Mare they award to Thomas Massey, jr. for his mare *Portia*, she having given the best evidences of her breeding qualities as the mother of *Billy*, of John Randolph by *Rinaldo*, a fine yearling colt by *Sir Charles*, and several other good colts.

The committee speak in high terms of commendation of *Adonis*, a fine bay stallion 14 hands 3 inches high, owned by Benj. Whiteman, Brandywine, sired by *Rinaldo*, and owned by Jas. Caldwell, and Mark Antony, who took the premium last year. Among the brood mares, *Beisey Wilkes*, owned by Capt. Gallagher of the Navy, sired by *Sir Archy*; *Micajah Churchman's* bay Godolphin mare; *Jas. Webb's* bay *Fanny*, and *H. Du Pont's* iron grey *Helen Mar*, attracted much admiration. Among the yearling colts, *Jacob Caulk's* bay filly by *Eclipse*, and *T. Massey's* two *Sir Charles' colts* were thought worthy of particular remark, and augur well for the advancement of horses in this county. Samuel Allen's sorrel two year old colt by *Delaware Eclipse*, was esteemed a young horse of fine figure and action; *John Platt's* Canadian stud *Lion*, 2 years old, for draught and farming was a model of this breed. *John Richardson's* two year old *Ney* colt was one of the best of old *Ney's* colts that have come under the notice of the committee.

The committee on sheep award the premium for the best ram to Philip Reybold.

They also award the premium for the best pen of Ewes to Philip Reybold.

In regard to wool, the committee deem it proper to observe, that on comparison of the several kinds they gave a decided preference to that taken from the sheep of *Micajah Churchman*.

The committee on Swine award the premium for the best Boar to Samuel Canby.

They award the premium for the best sow to Thos. Massey, jr.

The committee on Butter award the premium for the best fresh Butter to John Thompson.

The committee on Vegetables award the premium to Samuel Canby for the best Cabbages, and to John W. Andrews for the best Cauliflowers—A great variety of very superior vegetables were exhibited, for which premiums were not offered.

The committee on Fruits award the premium for winter pears to Dr. Wm. Gibbons, and the premium for peaches to Philip Reybold.

The premium on Silk was awarded to Lydia Baldwin of Mill Creek Hundred.

Among the extensive variety of contributions to the Horticultural Exhibition, the following articles merit special notice:

Pumpkins—One from J. Andrews, weighing 170 lbs.; one from J. Tweedy 130 lbs. and several rather smaller.

Table and Sugar Beets, very large and fine, from S. Bullock, J. Andrews, W. Paxson, B. Webb, N. Kinsey, Chas. Dupont, A. S. Read, &c. &c.

Mangel Wurtzel, from B. Webb.

Cabbages, S. Hilles, E. Hilles, John W. Tatum, Susan Woolston.

Kale, from Z. B. Glazier.

Turnips, from Jno. Bullock, J. Dodsworth.

Onions, very large, from seed this year, from J. Bullock, and B. Webb.

Egg Plants, from J. Staats, S. Canby, J. Andrews.

Carrots, from J. A. Bayard, Mrs. Thompson, Newark, T. Massey, jr. B. Webb, &c.

Parsnips, from E. Hilles, T. Massey, Jr.

Tomatoes, from Adam Witsil, W. Paxson, D. Knight, Judge Black.

Beautiful plum Tomatoes, from Susan Woolston.

Potatoes, from W. Paxson, Dr. Thomson, N. Kinsey.

Sweet Potatoes, from Dr. Thomson, Jas. Vaneman, New Jersey.

Peppers, Oyster Plants, &c. from Jno. Andrews.

Corn, very tall, from E. Tatnall, J. W. Tatum. Do. 13 ears on 4 stalks, from G. Milligan. Do. an ear 18 inches long, from I. vs Chandler.

Peaches, very fine, several kinds, from P. Reybold. Do. of enormous size, from Ridgeway and Reeves' orchard.

Seckle Pears, from J. Canby, E. Hilles, Dr. W. Gibbons, Edwd. Tatnall, Ashton Richardson.

Butter Pears, from Dr. W. Gibbons and James Canby.

Walnut Pears, Holland Green, Royal Winter, Cape May, Bergamot, &c. from Dr. W. Gibbons.

Apples, a number of varieties very fine, from D. W. Gemmill, John Jones of St. George's, W. Chandler, John Higgins, Alex. Haw.

Grapes, a fine assortment, from Z. Ferris, E. Tatnall, Jas. Simson, Dr. Thompson, Dr. H. Gibbons, Edw. Bringham.

Figs, from Eli Hilles.

Several splendid Lemons from H. du Pont.

French and Spanish Chesnuts from H. du Pont and N. Kinsey.

Citron and Nutmeg Melons, from S. Canby and Harvey Elliott.

Quinces, from E. Hilles and Mrs. McDowell, the latter exceedingly fine, but not in sufficient number to take the premium.

Honey, made in glass vessels, from H. Noblit.

Plants and Flowers—The contributions of flowers and hot house plants were very extensive, and from so many sources that it would occupy too much room to give the names of all the ladies who aided in this department. A large number of superb Dahlias were furnished by Edw. Tatnall, the Messrs. Canby, J. Andrews, Mr. Shelley of the Brandywine Springs, &c. &c. Mr. Dryburgh of Philadelphia, furnished a small church with a steeple, covered with Dahlias, and a large assortment arranged on shelves, which greatly enhanced the beauty of the exhibition. A beautiful harp of Dahlias made by Miss H. A. Bellah, attracted universal admiration, and also a large chandelier suspended in the centre of the room, and beautifully ornamented with evergreens and flowers, by Mrs. Rebecca Gibbons. Among the plants might be mentioned a fig tree in full fruit from Ruth Woodcock, a large bush of scarlet Sage from John Andrews, a variety of roses, the tea plant, the coffee plant, and a large number of other plants from Mrs. Eli and Samuel Hilles.—*Delaware State Journal*.

ON THE CULTURE OF THE TURNIP.

BY A. FORSYTH.

The early white Dutch and early Stone are generally preferred; but the genuine Aberdeen yellow (golden yellow, or Maltese golden) is the hardest, the hardiest, and most sugary of any sorts I have ever seen. Times of sowing may be about March 25, for early summer crop; May 15, for autumn supply; July 1, for a main winter stock; and Aug. 12, for the latest, or spring crop. In sowing, suppose the ground to be in ridges, 18 in. wide, and some well-rotted dung introduced between them; and, after digging every ridge separately, cover the dung about 2 in. deep, pass the roller over the whole, then make drills, and sow the seeds right over the ridge of dung, burying them not more than half an inch deep. As the plants come up, let them be dusted with powdered lime, to prevent injury from insects; and when they show their rough leaves, let them be thinned to about 3 or 4 inches apart in the rows, and afterwards thinned for use to 6 or 8 inches. At the approach of drought, frost, or snow, some may be dressed to 1 in. of top, leaving the root entire, and crowded side by side in dry tan, sand, or soil, in any open shed, or awning, where they will continue sound and serviceable for a considerable time.

Isleworth, Feb. 18, 1837.

HIGHER PRICES STILL.—Since our last notice of sales of improved (or blooded) stock of horned Cattle, we have met with the following account of prices, at a public sale, higher perhaps than were ever before given in this country:

Fifty head of Durham cattle, belonging to the

Ohio Company, were sold at Chillicothe, on the 20th ultimo., for \$36,443. The prices ranged from 48 to 1,700 dollars. The following are noted among the prices :

Matchem,	bought by Abram Renick,	\$1,200
Young Waterloo,	do. Gov. Trimble,	1,700
Duke of York,	do. R. R. Leymerer,	1,100
Experiment,	do. Gov. Trimble,	1,400
Comet Halley,	do. R. R. Leymerer,	1,505
Nimrod,	do. E. Florence,	1,040
Duke of Norfolk,	do. Gov. Vance and J. H. James,	1,400
Goldfinder,	do. I. Cunningham,	1,095
Blossom, cow,	do. R. R. Leymerer,	1,000
Matilda, do.	do. A. Watts,	1,000
Moss Rose, do.	do. J. Renick,	1,200
Malina, do.	do. I. Cunningham,	1,500
Flora and calf Powhattan,	G. Renick,	1,805
Young Mary and calf Pocahontas,	E. J. Harness,	1,500
Teeswater and calf Cometess,	J. J. Van-meter,	2,252

HOGS AND HOG PENS.

A good sty is of the utmost importance in fattening hogs. Nor is it less important for keeping them in winter; as the more comfortably they are kept, the less nourishment they require. The sty should be proportioned in size to the number of swine it is to contain. One of 16 feet by 12 is probably sufficient for 3 fattening swine. It should be divided into two apartments; that in the rear which should be about six feet wide, should be close and warm for the hogs to lie in. Here they should have a constant supply of dry litter, when the weather is cool; for it is an essential point to keep them comfortable. The front part of the sty, which would then be about ten feet wide, should have the floor descending on one side for the filth to run off; and on this side should be an opening. The trough should be on the upper side, covered with one or more lids; and upright pieces should be set at such distances apart as that one hog only could put his head between any two of them, in order that while feeding, the weaker animals should be protected against the stronger. The whole should be covered with a roof; for it is essential that they be protected from storms, while they are in the outer or feeding apartment. According to the foregoing, if 16 hogs are to be kept or fattened in the sty, it should be 32 feet long and 12 wide, and in that case there might be a sleeping apartment at each end. These apartments should again be subdivided, that, for the quiet of the animals, particularly in fattening, too many may not be forced to lie together. It would probably be best also to divide the feeding apartment; for two many hogs kept together, are not apt to enjoy that peace and quiet which is necessary to their fattening well. Posts should also be set up in the sty for the hogs to rub themselves. If thirty-two hogs are to be kept or fattened, then perhaps the better way is to have two styes of the dimensions last described, placed together, with a roof placed over the whole, and a passage between them for the purpose of carrying food to the trough. If a part of the roof extended considerably beyond the sty, it would afford a convenient cover for forming a heap of compost from the dung of the swine.

[From the Buckeye Plough Boy.]

HEMP AND SUNFLOWER SEED OIL.

Dr. Fry—As you have given notice that you are about to publish an Agricultural Journal, and solicit communications "relating to farming, gardening and the arts," I have been induced to send you a few facts, which, perhaps, may lead to beneficial results. Having been engaged for some years in the manufacture of linseed Oil, I find that many resort to it for light, which is little better than none; and the cost of good sperm oil, renders that too expensive for common use for the poorer classes of people in this western country. In order to obtain a substitute, which is much wanted, trials have been made to obtain oil from grain to supply its place. Oil has been made from corn, but the expense was nearly equal to sperm oil, and the quantity obtained has been very small. Last fall a barrel of hemp seed came to the mill, from which I expressed some oil without cracking the seed, and found it equal to the best sperm oil. I then took the remainder of the seed and ground and pressed it in the usual way of making linseed oil, which I found to be good lamp oil, emitting a clear and brilliant light. It produced about one gallon of oil to the bushel. I am unable to say how many bushels can be raised from an acre of ground; but have sowed a little to try the experiment on our soil, and intend to distribute the seed to such as may be disposed to make further trial of it. I think, however, that good lamp oil can be made cheaper from sunflower seed. A quantity of the latter was sent the mill about the same time in the fall, by a gentleman of Medina County. I had several experiments upon it, and found it would yield over a gallon to the bushel, which, after being clarified, proved to be as good as common sperm oil, and far better than the usual run of summer strained. On inquiry, the gentleman who brought the seed to the mill, stated that he sowed twelve rods of ground in an orchard much shaded, from which which he gathered seven bushels, without any cultivation except ploughing, and he thinks that one half of the seed had previously got shelled out, and lost upon the ground. Admitting this to have been the case, these twelve rods thus unfavorably situated at the rate of 186 bushels to the acre will make as many gallons of oil. It can be manufactured for 25 cents per gallon, and if we estimate its value even as low as 75 cents per gallon, it will still net the producer \$92 to the acre. I have sown a few rods of ground, which from appearances now, will produce a much greater yield. The seed makes an excellent food for fowls, being worth for that purpose about the same as an equal weight of corn. There are three kinds of seed, of which I consider the striped the best. If it shall be thought of sufficient importance to the public, I will in a future number describe the mode of cultivation, and also the manner of manufacturing and clarifying the oil.

Respectfully yours,

N. ROSE.

Cuyahoga Falls, August, 1837.

P. S. Please send me two numbers of the Plough Boy.

[I have received from a friend a small quantity of hemp seed oil, and find that it answers a very good purpose to burn in lamps, but at the price at

which the seed usually sells, it will never answer to manufacture into oil. I am not prepared to say that it could not be raised so as to be afforded at a price that it would answer. Will some reader of the Plough Boy, have the goodness to state what quantity of seed can be raised to the acre, and the cost of cultivation?

The sun flower can no doubt be cultivated at a profit. Willich says that "he does not know of any vegetable that is likely to afford greater advantages to an industrious cultivator, who possesses a few rods of ground, which is not sufficiently fertile for corn or pasture grass." It appears by this author that every part of this plant can be advantageously used. "The seed yields a large quantity of oil which is sweet and palatable, the young flower cups may be dressed and eaten like artichokes, its strong outer coat may be used for cordage, and the body of the stalk for fuel." If the oil will answer a good purpose to burn in lamps, it will no doubt be the cheapest way common people can obtain light. I see that Mr. Colman who has been appointed by the Legislature of Massachusetts, to make an agricultural survey of the state, has, among numerous other subjects, made inquiries relative to the cultivation of sunflower seed for oil.—Ed.]

[From the New York Farmer.]

URATE, OR MANURE FROM URINE.

We have been furnished with the following translation of a Report made in France, on the subject of Manure made from Urine, or the liquid parts of the contents of sinks.

By this report it will be seen that *this* kind of manure is exceedingly valuable, and has been used to great advantage—yet it is not held in as high estimation as *poudrette*, or the manure made by *evaporation*, from the more solid parts of the contents of sinks or privies. The value of *poudrette* is well understood and appreciated in France, Germany and England, where it is extensively used, and even exported to the W. I. Islands with great advantage.

There cannot, we believe, be a question as to its superiority over any other manure, if it is not *deteriorated* by the process of preparation; and so far as we are able to judge from the information in our possession, we have no doubt as to the facility with which it may be prepared without depreciation.

The following extract from the report above referred to, gives many interesting facts in relation to the mode of using, and quantity required, on different soils, etc.

"Eight to nine bushels (or about 600 lbs.) are generally sufficient per *arpent*—or French acre—which is equal to 1 acre, 1 quarter and 2 square perches our measure—upon artificial meadows, or upon grain after winter has passed, and in dry soils. In poor soils, it is necessary to increase the quantity to from $12\frac{1}{2}$ to 17 bushels per *arpent*, or to from 10 to 13 bushels to the acre, our measure, when used on grain in the fall. In damp soils it has been used with success, at the rate of from 17 to 21 bushels for winter grain. On the fertile soils of La Beauce, it has been used with more success than plaster, upon artificial meadow and only at the rate of 13 bushels per *arpent*. In

the vallies of Labrie, from 17 to 21 bushels, and at Monterau and de Bray, from 8 to 10 bushels per arpent are used. This manure may be dissolved, in water, as its action is greater when it rains, soon after it has been spread. The time for using it, is indicated by the nature of the soil, and mode of culture. Upon such soils as do not retain water, it is better to spread it at the time of sowing. The moisture of the earth, and the rains of that season, hasten its solution, and the grain is better prepared to resist the effects of the winter. Nevertheless, if the sowing takes place a very short time previous to the setting in of the hard frosts, it would be better to omit spreading the manure until early in the spring. Grain treated in this way, has given a produce very superior to that treated in a different manner; also when the soil retains water during the winter, it is better to delay spreading this manure until spring, as without this precaution, it would be too much diluted, except upon early sowing. In a wet season, more manure is required to be used in autumn, than in spring, upon the same quantity of ground. The use of this manure is very profitable upon spring wheat and other spring crops, if care is taken to spread it in damp or rainy weather.

When spread immediately after a heavy rain, its effects are almost instantaneous. During two years trial, its effects have been highly satisfactory. The following are the results:

The crops have been rendered stronger, and heavier by its use, and come earlier to maturity, while the grain has been larger and better filled.

Oats have yielded double, and the grain very heavy.

The same results have been obtained with barley.

Buckwheat has produced two or three times its ordinary crop.

Potatoes have yielded twice as many tubers, which were much larger than usual, very mealy, and of exquisite flavor. The manure is applied by being mixed with pulverised soil, and put in the hill.

Turnips have been able, after its application, to resist the attack of the *tiquet*, (an insect which eats the first leaves of the turnips during the drought.)

Beet roots obtained a circumference of 28 inches, were of a superior quality, and the leaves of unusual size. Upon the vine the trials have likewise been very successful, the vegetation has become active, the period of ripening advanced a fortnight, while the vine was of better quality than that from the same sort of vine on the same ground, but which had not been thus manured.

For the culture of the vine, three different modes of manuring have been tried, viz: Spreading it as in a corn field, placing at the foot of the vine, or by dissolving it in water, in the proportion of one pound to a gallon. This last mode has been found most successful. It has also been preferred to the other methods, both for vegetables and fruit trees."

✂ In scalding hogs, it is best to dip them first in cold water, and then in hot—the bristles come out easier.

[From the Franklin Farmer.]

THE BEE-MOTH.

Mr. Editor—Having had some experience in the management of bees for several years past, during a part of which time my apiary has comprised twenty hives; and having been a close observer of the bee-moth ever since its first appearance in this vicinity, I am induced to present a few facts which I have obtained by close observation, and which may probably assist some of your readers in checking the ravages of these destructive insects.

During the past summer I have kept a number of the maggots and the flies under glass tumblers and small boxes for the purpose of particular observation, and now write with one of each before me.

The moths are butter flies or candle flies, of a pale ashy color; and when full grown are about half an inch in length, with reddish backs, small sharp heads, short and delicate horns, and without a proboscis. Their wings are small and double, and when in a state of rest are kept close to the body. During the day they may be found sitting upon the retired parts of the outside of the hives, and may be easily taken with the fingers. About the dusk of evening and morning the females may be seen sitting with their wings extended, inviting the embraces of the males, while others are flitting to and fro, and occasionally one may be seen to dart with great velocity into the entrance of the hive. The bees will not pursue the moths on the wing, and the moths far outstrip them in flight on foot. The moths live about 10 or 12 days, during which time I cannot perceive that they take any nourishment whatever. The only object of their existence seems to be to deposit their eggs, which are small, round and white, and of which I have seen ten dropped in rapid succession. For this purpose nature has most skilfully provided them with a sort of proboscis about the sixteenth of an inch in length, which is contracted and protruded from their tails, and vibrated with great velocity, as wasps or hornets do their stings, which it somewhat resembles. With this admirable apparatus the eggs are deposited in places which are inaccessible to the bees, or they would be destroyed by a thrifty and a spirited hive. As soon as the young maggot casts its shell, it envelops itself in a web which is closely attached to the hive or stand, and which is impervious to the bees. These webs are enlarged as the maggots grow, and they grow fast and fatten kindly, no matter whether a poplar or pine plank, or honey-comb and its delicious sweets, are the elements upon which they subsist and weave their webs.

From one experiment I am satisfied, that the maggots will attain their full size of half an inch length, and the thickness of a large knitting needle in the short space of eight days: but of this I can speak with greater certainty hereafter, as I have now two lots of eggs under observation.

The maggots have tough, jointed, white skins, and hard oval black heads. They crawl but slowly, and rarely venture from under the protection of their webs; though they often pass, like moles, through the centre of a sheet of comb 10 or 15 inches in breadth, making a partial web over each cell in the route. Though the bees cannot, I believe, penetrate the hides of the maggots,

either with their teeth or their stings, still they can fight them and carry them out of the hives; and this they will do, when the hive is thrifty and in good spirit. I have often seen a maggot straighten himself and crawl off, apparently unhurt, after having been fought by several bees for many minutes; and I have seen the moths run over the bees and escape out of sight, by the time the bees had faced about ready to give them battle.

After a brief existence the maggot gathers his web close around him, becomes inactive, and gradually assumes a harder black shell, which it bursts and is again a fly in about twenty days.

I have been somewhat particular, thinking it important to know the habits and character of the insects, in order to know how to destroy them. I have tried in vain to disgust and drive them from the hive, by the use of turpentine, worm-wood, penny-royal, &c. I have tried confining the hive close to the stand, and plastering up all the crevices with quicklime, and I think the plan with tubes for entrance (which I first saw suggested in an eastern paper) might succeed, did it not require a nicety of material, and a precision of construction, which are not within the reach of ordinary bee-masters. After losing two valuable hives by relying upon the closeness of the boxes, I abandoned the plan, and have since tried elevating them upon blocks with better success. The zeal of your esteemed correspondent, J. J. V., for his plan, has led him into an error of which a close look into a thrifty and spirited hive will convince him. He will see the comb surrounded and covered with such dense clusters of bees, as no fly could penetrate: and any moth would conclude that it was far easier, (saying nothing of danger,) to lay its eggs in the lower and unguarded corners of the hive than in the more distant and frequented parts. All my stands have been more or less infested this year, and two which were but partly raised from the stand have been entirely destroyed; and, from daily observation, I am satisfied that the moths invariably at first, deposit their eggs in the lower parts of the hive, and chiefly, where it sits upon the stand; whence the webs are gradually extended until they reach the comb. The bees then soon relax their industry, lose their spirit, and commence to eat their honey, in which other bees unite, and which may be known by unusual quantities of excrement about the hive. The moths and the maggots are emboldened to greater intrusions; they boldly enter the inmost recesses of the hive, and soon the work of devastation is disgusting and complete. The bees, not having spirit to resent the intrusion, and not being able to prevent it, languish, die, or desert the stand.

In a future number, if you wish, I will give you an account of the plan I have practised during the present season, and which I think most susceptible of general practice and success.

Your friend,

R. W. S.

Note by the Editor—We wish our correspondent had added to the valuable information contained above, the account of the manner in which the depredator he so well describes, may be destroyed. The *evil* itself is indeed well described, and we wonder our friend did not point out the cure; especially as he knows his article in that shape, would have been more useful. Indeed, we had almost determined not to publish it until he

added to it, the remedy of the evil. Let him, however, furnish his plan—he knows he is always welcome to our columns.

Low blackberry leaves made into tea is exceedingly beneficial for a sore mouth occasioned by taking calomel, or from any cause.

Mr. Brooke, a traveller in Norway, says that the milk grows richer, as you go north.

TENDENCY OF SOILS TO DETERIORATE.

The natural, the inevitable tendency of all cultivation of the soil, is deterioration. The richest and most fertile contain but a certain proportion fit for the purposes of vegetation; and every crop taken from the soil, sensibly lessens this quantity. The result therefore must be, that continual cropping will reduce the best soils to barrenness, until, where circumstances admit, nature by her gradual method of repairing wrongs, imparts a degree of fertility. It is however possible to counteract this tendency to sterility in soils; to prevent the exhaustion of the qualities necessary to support vegetable life; and the difference between good and bad farming, or proper and improper cultivation, may be determined mainly by a reference to this single result.

In this country we can hardly form a correct idea, from any thing around us, of the frightful barrenness to which fertile soils may be reduced by improper management. Cultivation is here so young, that had it been of the worst description it would hardly have been possible to have exhausted so soon the measures that had for centuries been accumulating in our soils. Still there are examples in the United States, where soils have nearly reached that point, from which a restoration to fertility is impracticable. Soils of a silicious nature, or that are inclining to sand, are the most easily and quickly reduced. Of this the south-east part of Massachusetts, and parts of the southern states, at the present time, and parts of Long Island, as it was some thirty years ago, furnish striking proof. When cultivated, without regard to consequences, the nutritive part of such soils is quickly exhausted; the little vegetation produced is not sufficient to prevent the burning effect of the sun; the roots of the grasses are unable to fix and bind the soil; it becomes loose and floating; plants root themselves with more and more difficulty, and at last, what was once a fertile plain, becomes a sandy waste, where cultivation is impossible.

It is in the old world that this process of deterioration may be the most clearly traced. To renovate seems to have formed no part of the ancient profession of agriculture. In all the writings of antiquity there is scarcely a hint that manuring, or in any way improving cultivated lands, was practised to any extent. Now and then, where nature had set the example of imparting fertility by the annual overflow of rivers, man seemed inclined, so far, to imitate her works, and irrigation for ameliorating land was frequently adopted. But this was about the extent of ancient attempts at improved cultivation, and the result has been such as might confidently have been predicted. The regions of the east, that two or three thousand years since were as the garden of

Eden for beauty and fertility, have gradually become sterile and worthless; and tracts of country that once supported a thriving and industrious population, have, from the action of the causes alluded to above, become deserts, in which the solitary camel can scarce find a shadow of vegetation to supply his easily satisfied wants. Mesopotamia; parts of Syria and Palestine; Edom, and parts of Arabia Felix; many parts of the North of Africa; and no inconsiderable portion of Asia Minor, have thus become hopelessly barren. The finest of wheat can now no longer be grown on the plains where once the reaper filled his arms with the yellow sheaves. They were ceaselessly cropped, until the soil was so exhausted, that the unaided efforts of nature was unable to restore fertility, and the result is perpetual barrenness.

To counteract this tendency to sterility, is the business of the farmer; and on the possibility of doing this rests the whole system of improved agriculture. Science has here come to the aid of the cultivator of the soil, and by revealing the agents and promoters of fertility has greatly assisted and simplified the processes, without which all would be still doubtful and uncertain. The action of manures has been ascertained; the value and activity of the various salts formed by the decomposition of animal and vegetable matter in part determined; the aid which the mineral earths afford vegetation has been carefully examined; and those combinations of soil the best calculated to induce fertility have been accurately investigated.

Manure, then, is the sheet anchor of the farmer. It is to this source of fertility he must look for the renovation of the soil, and the means of continued productiveness. And it is to manures produced from his fields, from his flocks and herds, from decayed vegetable and animal matter, that he must look for this result. These are the true fertilizing ingredients; and though other agents may be useful as exciting these to action, yet these may be considered as constituting the food of plants, the cause of growth and nutrition. The application of the exciting mineral manures, such as lime and gypsum, is productive of the happiest effects, for the reason assigned above; yet they are not so absolutely essential to the improvement of the soil as those that have a vegetable or animal origin. Matter which has once lived, which has already taken the forms of organized existence, more readily assumes the forms of organized life, and is more easily assimilated than that which has never undergone such a change. It is the office of the vegetable to take the crude atoms of matter as they exist in the soil, and prepare them for the support of animal life; and when this has once been done, though a partial decomposition may have been effected, a renewal of the process is comparatively easy and certain.

In connexion with the preparation and application of manures, the next most important step which modern agriculture has taken to prevent a deterioration of the soil, is rotation in crops. Judiciously conducted the result is certain; exhausted lands are restored, and the profits of the agriculturist greatly increased. It was formerly the custom to let lands suitable for grass remain for that purpose alone; while those suitable for the plough were annually subjected to its use until exhaustion forbid. It was then left to the restoring

process of nature. There were at the beginning of this century, lands in the farming sections of England which it was well known had lain in grass for five hundred years, and there were other tracts which had been as constantly submitted to the plough, or, as often as the soil promised to repay the expense of cultivation. This system has been abandoned; a more enlightened system of agriculture has prevailed; and the products in consequence, have been more than doubled. The course of rotation is indeed variable in different districts, both in Europe and in this country, but it is founded on the same great principle, that different plants take up different ingredients from the same soil, and from different depths, and that a new plant will flourish in a soil where one of the same kind previously cultivated could not succeed at all. Thus in England, in Holland and Belgium, in some parts of Germany and France, and in some few instances, in this country, a regular course of cropping adapted to the soil, has been adopted with the happiest effect. This course, which varies from three to six years, according to circumstances, embraces roots, grains, and grasses, and taken in connexion with thorough manuring, which this system enables the farmer to practice, not only improves the quantity and value of each kind of crop, but is deepening, enriching and fertilizing the soil. Manure and the rotation of crops, are then the great means to which we must look to preserve our now fertile plains from the fate which has overtaken so large a part of the east; and they are fortunately both easy of application, and entirely within our reach.—*Gen. Far.*

SMELTING IRON WITH ANTHRACITE COAL.

We are gratified to be able to lay before our readers, further information in regard to this discovery, so highly interesting to our State and to the Union at large. At the Liverpool meeting of the British association for the advancement of science, the discoverer, Mr. Crane, read a paper, an abstract of which we find in the London Literary Gazette, of September 16, as follows:

“Mr. Crane, of Toriscedwyn iron works, near Swansea, read a paper on his successful introduction of anthracite coal, by the combination of heated air, for the purpose of smelting iron ore. The reduction of the quantity of fuel expended, to less than one third of that before required of the bituminous kinds, for the production of the best of pig iron—the increase of from forty to fifty per cent. upon the former make by the process—and the greatly increased strength of the metal, when compared with that previously obtained by him from the native ores of the South Welsh basin, with the use of coke of the bituminous veins, and cold blast, were the leading points of the paper. This is a subject of great interest in a commercial point of view: as, if perfectly successful—and from the experiment of Mr. Crane, on a large scale, there seems to be strong ground for supposing it may be so—it is a question whether the discovery will prove more beneficial or injurious to the prosperity of this country. On the one hand, it was urged by Mr. Crane that at least one third of the immense coal pits of South Wales is composed of anthracite coal, which will thus for the first time, be brought into extensive use for the purpose of smelting; but on the other hand, it must be remembered that this description of coal

exists, together with iron ore, in great abundance in the United States of America, as well as in various parts of the continent, the inhabitants of which would, if the theory hold good, be enabled to rival our works, at a cheap rate. Mr. Crane stated that he had smelted a ton of iron, on an average, with less than 27 cwt. of anthracite coal;—and in regard to quality, the result was perfectly satisfactory. His works had long been noted for producing iron, equal, if not superior, to others in South Wales; and by means of anthracite coal he had been enabled to improve its quality. Anthracite coal being almost entirely composed of carbon, it was his opinion that he would be able, at no distant period, to produce, by its means, an iron not inferior to that formerly smelted by charcoal. Having beds of bituminous coal as well as anthracite, in his possession, he had instituted comparisons as to the amount of iron which could be produced by the most economical application of coal, and he found that there was a considerable saving in the use of the latter. Mr. Crane then gave a highly descriptive account of the manner in which he had first discovered the means of applying his discovery to the combustion of the coal. The mode in which he now conducted the smelting, was by means of a cupola furnace, into which he urged a stream of air, heated to such a degree as to be able to melt lead; the effect of this hot blast being all that was necessary to produce that combustion of the coal requisite for the reduction of the ore."

[From the Springfield Gazette.]

ENCOURAGEMENT TO WHEAT GROWERS.

Mr. Chauncy Chapin of this town raised on a piece of five acres of new land, the present season, *one hundred and twenty five* bushels of wheat, being 25 bushels to the acre. The wheat is of the first quality, fit to be used as seed wheat, and most of it has been sold for this purpose, at \$2.50 per bushel. At this rate, the whole value of the crop amounts to \$312.50, or \$62.50 for each acre. The expense of the labor in raising, gathering and threshing the wheat, Mr. Chapin estimates at \$10 per acre—expense of the seed \$4—making the whole expense per acre \$14. This, deducted from the above sum of \$62.50 leaves a clear profit per acre of \$48.50 and on the whole crop showing a profit of \$242.50! Mr. Chapin estimates the value of the land at \$30 per acre—so that he cleared not only the value of his land, but in addition thereto \$18.50 per acre, or on the whole \$92.50!

Our farmers seem generally to be rather reluctant to venture in raising wheat, principally because it is thought a more precarious crop than rye—but surely here is encouragement enough to undertake it, even at some risk.—And certainly it is very desirable that such a quantity should be raised among our own farmers as will rescue us, as far as possible, from a dependence upon importations from other states, for a supply of flour.

We do not know that there was any thing peculiar in the mode of cultivation, adopted by Mr. Chapin—but a statement from him of the details of the process might be of benefit to his brother farmers—and we presume, it would be highly gratifying to them, to have such a statement made and published by him.

HINTS TO YOUNG FARMERS.

CULTURE OF THE MIND.

You know well, that one piece of land, a garden for instance, yields vast more than another piece of ground of equal natural fertility. And you know equally well, that one man abounds more in knowledge and usefulness, than another to whom nature has been alike bountiful. It is culture—it is the industry and perseverance of man, exerted in one case, and not in the other, that produces the marked contrast in both. The cultivator is sure to be rewarded, in his harvests, for the care and labor which he bestows upon his soil—and the reward is no less certain to him who devotes his leisure hours to the culture of his mind. The soil administers to our animal wants. Knowledge not only greatly assists in supplying these wants, but is the primary source of intellectual wealth, which dollars alone cannot give, and when consorted with good habits, tends to refine, elevate and distinguish men above their fellows. Talent is not hereditary. You will see, on looking around, that most of the distinguished men of our country have sprung from humble or obscure parentage. They are indebted for present distinction to the culture which they have themselves bestowed upon their minds. The road to usefulness and honorable distinction is equally open to you, and the time has arrived when you must decide, whether you will compete for the noble prize.

If you wish to be prosperous in your business—to know and profit by the improvements of the age—cultivate your mind—for this is the great labor-saving machine. If you wish to see your children intelligent, thriving and respected, teach them, by example, to cultivate the mind. If you would be useful to your friends, and merit the confidence and esteem of your neighbors, seek early to qualify yourselves for the duties of social life, by the culture of the mind. If you aspire to intellectual enjoyments which flow from the study of the material world—from the order, harmony and beauty, which meet us in every walk, in the manifold and wonderful works of the Creator—cultivate the mind. In fine, if you would prosper in your business, in your family and in society, cultivate the mind.

But knowledge is not always wisdom, and therefore, be as scrupulous in regard to your studies as you are in regard to the seed which you deposit in the soil. You will reap whatever you sow: and the mind is as liable to be cumbered with weeds as is the soil. Read, therefore, whatever tends to instruct you in your business, to establish in you good habits, and to fit you for the responsible duties of life. Acquaint yourselves with the inventions and improvements of modern art. Make yourselves acquainted with the general facts of science, with the wondrous laws by which the Almighty governs all around us: and with the endless illustrations of these laws, in the world and all its parts. The facts of natural history will afford abundant matter for agreeable and useful knowledge. The plants, the animals, the minerals, the soils of your country and of other countries—the changes of the seasons—the make and composition of all that surrounds you, duly observed, and made the subject of reading, of conversation, of reflection, will at once store your mind, and raise your ideas of the wisdom and

goodness of Him who formed you such as you are. Temperance, self-government, moderation, avoidance of all abuse of the body, are written in the very make of the body itself. And it will hence plainly appear, that when our Maker says, abstain from all impurity, he does but say, "Do thyself no harm." Who aims at excellence will be above mediocrity; who aims at mediocrity will fall short of it."

MULBERRY TREES.

In addition to the 200,000 *Morus Multicaulis* and other varieties of Mulberry Trees, already advertised by us, we have the following—

20,000 *Brussa* Mulberry, 5 to 7 feet high, with large leaves and very hardy, and 10,000 of smaller size.

25,000 of the variety called *CHINESE MULBERRY*.

Orders per mail will meet prompt attention, and priced catalogues of these and of all kinds of Fruit and Ornamental Trees, Shrubs and Plants, Bulbous Roots, Garden, Agricultural and Flower Seeds, will be sent to every applicant.

WM. PRINCE & SON.
Linnæan Garden and Nurseries, near N. York.
oc 31 3t

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Cast-steel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	
All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.	

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

July 4

J. S. EASTMAN.

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Remarks on the supposed quantity of Flour the present year—advice—notice of Mr. Coke, of Norfolk, Eng. and of his estate.—Report of the Premium Committee at the late Fair in Delaware.—On the culture of the Turnip—high prices of cattle—hogs and hog pens—hemp and sun flower seed oil—urate, or manure from urine—the bee-moth—on the tendency of soils to deteriorate—smelting with anthracite coal—encouragement to wheat growers—hints to young farmers—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel	94	100
White,.....	"	92	95
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana—Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 50	
" wagon price,	"	8 25	
City Mills, super.....	"	8 25	8 50
" extra	"	8 75	9 00
Susquehanna,.....	"		
Rye,.....	"		
Kiln-dried Meal, in hhds.	hhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	8 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	82	85
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 85	1 90
Red, best.....	"	1 80	1 83
Maryland inferior	"	1 25	1 60
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hhds.....	"		37
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,..... do.....	"	10½	10½
Middlings,..... do.....	"	do	do
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....par	VIRGINIA.
Branch at Baltimore,.....do	Farmers Bank of Virg. 1½	1½
Other Branches,.....do	Bank of Virginia,..... do	
Branch at Fredericksburg do	Branch at Fredericksburg do	
Banks in Baltimore,.....par	Petersburg,..... ½	
Hagerstown,..... ¾	Norfolk,..... 1½	1½
Frederick,..... do	Winchester,..... ½	
Westminster,..... do	Lynchburg,..... 1½	1½
Farmers' Bank of Mary'd, do	Danville,..... ½	
Do. payable at Easton,.... 1	Bank of the Valley,.... 4	
Salisbury,.... 2 per ct. dis.	Branch at Romney,.... do	
Cumberland,..... 3	Do. Charlestown,.... do	
Millington,..... do	Do. Leesburg,.... 1½	
DISTRICT.	Wheeling Banks,.... ¾	
Washington, } Banks, ¾ p.c.	Ohio Banks, generally 6½	
Georgetown, } Banks, ¾ p.c.	New Jersey Banks gen. 5	
Alexandria, } Banks, ¾ p.c.	New York City,..... ½	
PENNSYLVANIA.	New York State,.... ¾	
Philadelphia,..... ¾	Massachusetts,..... ¾	
Chambersburg,..... 1	Connecticut,..... ¾	
Gettysburg,..... do	New Hampshire,.... ¾	
Pittsburg,..... ¾	Maine,..... ¾	
York,..... 1	Rhode Island,.... ¾	
Other Pennsylvania Bks. 4	North Carolina,.... 5	
Delaware [under \$5].... 6	South Carolina,.... 8½	
Do. [over 5]..... 2	Georgia,..... do	
Michigan Banks,..... 10	New Orleans,..... 12	
Canadian do..... 10		

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, and with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work a gain, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work, — a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdin & Co's. fronting Grant and Ellicott-sts. in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf

ITALIAN SPRING WHEAT.

The subscribers daily expect to receive about 100 barrels of Italian Spring Wheat, raised near Rome, N. Y. by J. Hathaway, esq. from imported seed.

This wheat was raised by Mr. H. particularly for seed grain, and the greatest care has been taken to prevent mixture from other sorts. The article is perfectly clean, and put up in tight barrels, which hold 3½ bushels each. Those desirous of being supplied with this desirable article will make early application.

The price will be \$5 per bushel, the cash to be paid on delivery of the grain. ROBT. SINCLAIR, Jr. & CO.
Light, near Pratt street, Baltimore.

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KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, Jr. & Co.,
Light, near Pratt-street, Balt.

Sept. 10.

3t

ROBERT SINCLAIR'S NURSERY,

AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known — Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, English Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, Jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

oc 17 5t

ROBERT SINCLAIR, senr.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 28.

BALTIMORE, MD. NOVEMBER 7, 1837.

Vol. IV.

THIS publication is the *successor* of the late
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and is published at the office, at the N. W. corner of
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DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

TUESDAY, BALTIMORE: NOVEMBER 7, 1837.

REMOVAL.

The office of the "Farmer and Gardener" is removed to the North West corner of Baltimore and North-sts., over the Patriot office, opposite the Franklin Bank, and near the Post-office.

WORK FOR NOVEMBER.

ON THE FARM.

To the farmer all months bring with them their appropriate labors, their excitements and anxieties, and none, perhaps, have a larger share than the present. When each then draw so freely upon the resources, the enterprise and industry of the husbandman, it behooves him to arm himself with fortitude, to look forward with forecast, and, if possible, to be ahead of his work; for by taking time by the forelock he may often not only render his toils sources of pleasure, but by prudently anticipating things necessary to be done, so husband his force as to be able to turn every thing to the most profitable account. Indeed such are the delightful effects of a just economy of *time* in the operations of farming, that he who does all things at the proper period may be said to have attained the great desideratum in his art, at which each should aim. We have said that no month is more prolific of cares than the present, and by way of sustaining the justness of the position we have assumed, we will briefly detail a few of the many objects which now present themselves for immediate attention.

CORN—This valuable crop must now be secured, and, as every good farmer knows, great care must be taken in harvesting it, lest by an injudicious stowing of it away, he may greatly impair its value. If it should prove not to be sufficiently hardened for keeping in bulk, it should be carefully spread out and freely aired, lest by its being heated, that which is ripened, be spoiled by that which is not. Capacious and well ventilated corn

cribs are just as essential to preserve it after it is grown, as good cleanly culture is to make it; for there is no truth more unerring than that the labor is but half performed when the corn is ready for the garner.

While we are upon the subject of corn, let us say a word or two upon the subject of the husks, or, to use that good old Virginia phrase, the shucks. These are usually cast into the fodder house, and doled out through the winter by careless domestics, who think their obligation of duty is performed when they throw them into the barn or cow-yard among the *litter*, to be eaten or trampled under foot, as the case may be, by the stock, where, in nine cases out of ten, a large portion of them is lost for all the purposes of food, whereas were a little care taken to render them palatable, all would be consumed, to the great comfort of the poor animals and profit of their masters. It may be said they are coarse food, and would not justify any extraordinary pains—true they are *coarse*, but still they are *substantial*, and if they do not serve to *fatten*, they allay the cravings of hunger, and answer well the distension of the stomach, a great object in the feeding of cattle. But then the *care* we ask in their use, is *emphatically* what we call it—*little*. Let the person having charge of feeding with them, put them in a manger, or other clean place, and as he gives them out to the stock sprinkle a small quantity of brine over them; they will render them grateful, cause them all to be eaten with avidity, and save the trouble of salting the cattle, a thing which no good husbandman can neglect without losing sight of his interest. But if this salting in *detail* be too *troublesome*, let your hands make one job of it, and salt your shucks when they are put away.

And while we are incidentally upon the subject, let us make a few general remarks upon your

Stock—Set it down as a rule from which without warring alike against principle and interest—without sinning against the higher obligations of humanity, you cannot depart, that you should not attempt to winter more stock than you can bountifully provide for. Half a dozen well-fed cows, which not only receive their proper quantum of long provender, but slops and succulent food also, will give you more milk and cream, and con-

sequently more butter, than a dozen indifferently fed ones. In addition to this, we are very certain you would not exchange the pleasurable feelings incident to beholding your cattle in good condition, with sleek hides, for "much fine gold;" for the consciousness of having contributed to the comfort of those poor dumb brutes, which have so oft and so generously added to the luxuries of your tables and the gratification of your appetites, carries with it a reward priceless because heartfelt.

Again. If you have any young stock just entering upon their first or second winters, you must bear in mind that if you wish them to attain a *profitable size*, you must not stint them,—nay you *must feed them well*, for no animal can grow which is fed indifferently:—believe us, large size is alone to be attained by nourishing diet.

There is one fact which we have before spoken of, which we would again enforce—it is this—that if you desire to make deep milkers of your heifers which may be now in calf, you should by all means treat them bountifully with slops for several weeks before calving. The time to *make* or *spoil* a young cow, is that which intervenes just a few weeks before she gives birth to her firstling. Do you desire that she should give a copious supply of milk? If you do, then you must afford her the proper materials wherewith to fill her udder. Her milk vessels must be distended—you must give her a chance of secreting her milk, and of thus giving volume and capacity to its recipient—this cannot be done by dry food; nothing save rich and nourishing slops, or succulent food of some kind, will achieve this object. And while we thus earnestly commend your three-year olds to your kind attention, let us also conjure you to bestow equal care upon all your milch-cows.

We have spoken freely of the feed of your cows, and we would now bespeak for them good comfortable quarters—warm sheds facing the south, or good stables; either, to be supplied with beds of straw or leaves. In your woods you have ample supplies of the latter for the trouble of gathering them, and you may rest assured that besides tending greatly to the comfort of your beasts, you may by attending to this hint add immensely to the quantity of your manure, and consequently to the improvement of your soil: besides affording

excellent litter for your stock, leaves are equally serviceable as absorbents of liquid manure, which would otherwise be wasted by evaporation, or by being carried off by each succeeding rain. By proper management, and judicious admixture with the mould from the woods, say one load of the latter to three of the former, two loads of manure equally as good as that from your stables may be made.

From what we have said, you will see the propriety of having supplies of both brought from your woods before winter sets in, and by placing the leaves under cover you will always have them at hand to use as you may desire.

Hogs.—Take your hogs in from their ranges as soon as they have consumed the mast therein, and then by *regular* feeding complete the work of hardening their flesh.

If you desire to preserve your pigs, you should not permit your breeding sows to be served before the tenth of January, as the swine is an animal that delights in warm weather, and its young cannot stand the intense cold of our winters.

Horses.—These noble animals we need not say to you, you should keep warm, well bedded and and fed during winter—because humanity as well as necessity will teach you your duty.

One word more with regard to your stock generally—believe us, it is just as necessary to regularly water them as it is to feed them well, and if you study economy that you will cut all the hay, and mash or chop all the grain consumed by them.

Sowing of Grain.—Both rye and wheat may still be sown—but the sooner done now the better.

Getting out Grain.—Thrash out and clean your small grain of all kinds as soon as possible, taking care to carefully put it out of the way of rats and other vermin, and to avail yourself of the first occasion of a good market to dispose of it.

Turnips.—Gather your turnips as soon as they have attained sufficient size and bury them with a covering of 9 or 10 inches of earth, taking care to select a dry place, and leave a plug of straw in the top of your mound to act as a ventilator to carry off all foul air and prevent decomposition.

Meadows and Grass lots.—These should now have a top dressing composed of ashes, soot, lime and mould, or such of them as you can conveniently command. If you act wisely you will keep your cattle off your meadows; for you may rest assured that the degree of benefit they receive from grazing thereon, will not in the least compensate you for the injury you will sustain in your next year's crop of grass.

Potatoes and roots of all kinds should be taken up and secured.

Fall Ploughing.—Whatever stiff ground you intend to cultivate next spring should be forthwith ploughed and left at angle of about forty-five degrees to the benefits of the winter's snows and frosts. It will do it more good than ten loads of manure to the acre—and while you are ploughing, plough deeply.

Winter's Wood.—As soon as the leaves have all fallen, cut down and cart into your yard a full supply of wood to serve you throughout the ensuing year, so that in no contingency it may be possible to catch you without a warm hearth to greet your neighbor with who may chance to call to see you during the ensuing winter; for believe us there is nothing more welcome to the eyes of friendship than a good fire of a cold day when the wind blows shrewdly.

Cider.—If it has been your good fortune to have been blessed with a good yield of apples, be careful of them, and equally so in the making of your cider; for cider will be cider the present season.

Great sale of Tobacco.—Messrs. Gerard sold at New York, on Wednesday, by auction, thirty hogsheads of Kentucky tobacco, which averaged within a fraction of ten cents a pound. This is a very extraordinary price, and such a one has not been obtained for a long series of years. The cause is, the extreme scarcity of the article; the stocks now, of all sorts, not being over 500 hogsheads, against six thousand last year. A large supply has, it is said, accumulated at Lynchburg, where it is detained for want of water in the river to boat it away. The stocks are light in Europe, and in all our ports, so that prices, in all probability, will rule higher for some time to come.—*Chronicle.*

[From the Farmer's Cabinet.]

LIME.

Having been requested by you to give some views of lime as applied to agriculture, I have refrained from so doing, until time has been afforded for a degree of personal observation. In agriculture, especially, theory, however plausible, should be advanced with diffidence, and submitted as soon as convenient to the touchstone of ROGER BACON—*experiment.*

The limestone of Whitemarsh, Montgomery county, Pennsylvania, my place of residence, is primitive, and remarkable for the purity of the lime produced from it. Fifty bushels, kiln measure, to the acre, are considered sufficient for our strong valley land, under a succession of crops for six years. The application is frequently made after the lime has been exposed in large heaps, to the action of the elements for many months. In regard to the most judicious method for the introduction of lime to the soil, opinions vary; but almost all agree that every crop, is materially benefited by any of the usual modes of spreading.

The effect of lime in decomposing vegetable matter is well known.

Near the last of 8th mo. (August,) 50 bushels of lime to the acre were spread over a clover field almost run out, from which a first crop of grass had been taken at the usual time. The second crop grew tolerably well, and was ploughed down with the lime, preparatory to seeding with winter grain. At the interval of four to five weeks the ground was cross ploughed, and the vegetable mass of grass, weeds and roots, found to be almost pulverized, and incorporated with the soil.

It is customary with many farmers in this vicinity, to apply a handful of ground plaster to each hill of Indian corn, after it appears a few inches above ground. A small portion of a corn field thus treated, was last spring reserved for an experiment, with the same quantity of powdered or fine lime, applied in like manner.

The result has been in favor of the lime, both the stalk and ear of the corn, being much superior to the average production of the field.

Your friend,

MORRIS LONGSTRETH.

Valley Green, 10th mo. 2d, 1837.

Corn—The Weevil.—As the season is now approaching when farmers will commence gathering their corn crops, I deem it my duty (as a farmer) to inform them through the medium of your paper, how to secure their corn from the ravages of the weevil, which often, during the summer and fall seasons, entirely destroys whole houses of corn. As the remedy is so simple and cheap, I am in hopes no farmer will leave it untried. It is simply this. When hauling in a crop of corn, have a mixture of salt and water prepared (say one pint of salt to a gallon of water,) and as each load is thrown into the house, sprinkle it thoroughly with salt and water, and it will entirely prevent the insect from breeding in the corn, and likewise cause the husks to be more palatable for stock of any kind. As I know this from experience, I feel no doubt in recommending it to others.

A FARMER.

Peach Trees.—A subscriber informs us, and wishes the fact made public, that MARL put round the trunk of Peach Trees, say a bushel or half, that measure to each tree, protects them from the attack of worms, preserves the trees in health, continues them in life beyond the time of their ordinary existence, promotes the growth of the fruit to almost double its former size, and increases the richness of its flavor in like proportion. This is valuable information indeed, and our friend assures us it is not less true than valuable.—*Salem (N. J.) Banner.*

Implements for Boys.—A friend who feels considerable interest in the promotion of agricultural science,—and whose practice in this matter corresponds with his sentiments, has called our attention to the subject of agricultural implements for boys. He states that, in many cases he has observed a marked difference in various respects, between those who have been compelled to operate with such as are disproportioned to their years, or the physical force they are capable of exerting with ease. The importance of this subject has not been duly estimated—indeed, it has been almost entirely overlooked. We ask for it the attention of our correspondents.

RUST IN WHEAT.

Rust, blight and mildew, are different names indicating the same thing, and that it is a disease which sometimes proves fatal to the hopes of the farmer, by attacking and destroying his grain immediately before harvesting. Rust is now very generally considered as a parasitical plant of the fungus or mushroom kind, and is described by botanists as follows: "*Uredo linearis*, (yellow grain rust) in lines on the leave and stem; stained reddish yellow. Found on the stems and leaves of barley, oats, rye and wheat."

It is not often that this disease of wheat has been so extensively injurious as it has proved this year; in western New-York alone, the damage may be estimated by millions. Until about the 20th of July the wheat crop had rarely appeared more promising; the grain having apparently recovered from the effect of the severe winter, standing well, and the ears large and well set. Wet, damp, sultry weather followed, and a change at once came over the wheat fields. Rust showed itself in great quantities, and where the growth was the heaviest and most rapid, there the effect was as usual soonest discovered. The yellowish red of the rust, soon assumed a dark hue; and, as the progress of wheat so attacked, seems to cease at once making any approaches to ripeness, the green wheat became discolored, giving a dirty cloudy hue to the whole field as far as diseased. If in a very green state, when attacked, as some fields that have fallen under our observation were, no berries are formed, if in a more advanced state the berry shrinks and becomes comparatively worthless. If the berry has nearly reached maturity, the injury it sustains is trifling; and hence those pieces of wheat, the present season, the most advanced, have suffered the least.

The cause of this diseased state of the wheat plant, and the manner in which it effects the berry so suddenly and so seriously, does not seem to be well understood, nor has any successful methods of prevention been devised; and the hope of eliciting communications from our farming friends, has been one of the objects in thus bringing it before them. Opinions which at first view appear discordant, may be the means of reaching the truth; and nothing aids this process more materially than observations in different places and under different circumstances, faithfully given to the public.

Several ways have been mentioned in which it was supposed rust was produced, and various causes have been assigned for its injurious effects on grain. Observing men, farmers, appear to be mostly agreed on three things as necessary to the production of this disease—heat, moisture, and a rapid growth; the latter may indeed be considered as a necessary consequence of the two former. The rust is generally first noticed when a few dry days succeed several damp and sultry ones, or when in hot weather changes from wet to dry rapidly succeed each other.

Some farmers have supposed that the outer covering of the stem splits in consequence of the accumulation of sap in the vessels of the plant, and that the rust is simply the exuding juices of the plant through such opening. This supposition would seem to be founded on the fact that the pores of the plants are arranged in rows longitudinally, and as the root of the fungus is fixed in

these, it of course assumes the linear form. It is not impossible however, but that as the roots of the parasite penetrate and expand, the checking the juices may cause the rupture which seems visible in some extreme cases.

Other farmers have maintained that the substance called honey dew, is the cause of rust, and they infer this from the fact, that it is usually first observed in clear dry weather, a state of the atmosphere in which the phenomenon of honey dew is most frequently noticed. The appearance of honey dew is as much a mystery as that of rust, but that they are not the same, or that honey dew does not always become rust, may be inferred from the fact that it never assumes that form, on those substances where it is most frequently found, or most deposited. The theory has been advanced that honey dew is the result of a chemical action depending on electrical state of the atmosphere, and it derives in our opinion some plausibility from the comparative ease with which all farinaceous matter may be converted into sugar or rather honey, as in the case of starch from potatoes or flour. At the time rust takes place, the juices of the plant are undergoing the change that renders them fit to supply the berry with its farina, and it is not impossible that after this change has been partially developed, large supplies of moisture accompanied by heat, may produce an action or fermentation of this matter, that shall change its nature, render its conversion into farina impracticable, and cause it to exude through the pores of the plant where it becomes visible in the shape of rust.

It is obvious, however, that much that is asserted respecting rust is mere matter of conjecture. That its origin is involved in doubt, and the manner in which it affects the plant, not well understood, is clear; but it by no means necessarily follows that this uncertainty arises from the causes that cannot be overcome, or difficulties that cannot be removed. Men of science should investigate, and practical men should observe, and facts might thus ere long be accumulated which would enable us to trace this and similar evils to its source, and apply the proper correctives. Time and talent, however, are required to successfully prosecute such inquiries, and few men are able to devote the necessary time without compensation. It is our firm belief, that had our legislature, at the time the subject of the wheat worm was brought before them by a memorial from the State Agricultural Society, made an appropriation of ten thousand dollars to be paid to the individual or individuals who should clearly determine the insect or insects that produce the worm in the ear, and place its history and habits beyond a doubt, and discover some effectual remedy to its ravages, the State would at this moment been millions of dollars richer. The State has lavished its millions on education. Education is an excellent thing; but it is our opinion that had twenty thousand dollars been devoted to elucidating a few points connected with bread, such as the fly, worm, and rust, the agriculture of the State would soon have been in quite a different position from what it is now like to be, the morals and education of the people quite as good.—*Genesee Farmer*.

A manual labor College has been located at Cane Hill, in Washington county, Arkansas.

THE ADVANTAGES OF AGRICULTURAL ASSOCIATIONS.

It is needless, in the present day, to advance any arguments for the purpose of demonstrating the advantages which agriculture derives from the establishment of Agricultural Societies, Cattle Shows, Wool Market, &c. The reciprocity of information which takes place by concentrating into one point the improvements of the surrounding neighborhood, and again spreading it abroad into other parts of the locality, for the benefit of those who, but for opportunities so afforded, might long have remained ignorant of the advances making by their more talented and better informed, although perhaps not more industrious brother farmers, is of the utmost value to those who seek to embrace every means of bettering their condition. There is no man who contemplates the improvements which have taken place in the system of cultivation, in the qualities of stock and in the make of agricultural implements, during the last fifty years, but will readily concede that the science of agriculture is still capable of a degree of improvement which scarcely admits of our setting a limit to the amount of population for which the soil of the British Islands may be rendered capable of supplying food. Experience has shown that a call for manufactured goods to any amount may be answered by the manufacturers of Great Britain. It is true that two years since we heard of the manufacturers being so full of employment, that further orders could not be executed for six, or even more months. That circumstance did not arise, however, from the absolute incapability of means in the country to supply the demand, but from the demand coming so unexpectedly, that time had not been allowed to prepare for it. Had the unfortunate derangement of the monetary system, under which we are now laboring, not taken place, the erection of manufactories and of machinery, capable of supplying the demand, would have gone on to an almost interminable extent. It is an increasing, but steady demand, which the manufacturer requires, and the same doctrine will apply to the agriculturist. In our paper of this day we give reports of three interesting meetings, "The Devizes Market Ordinary," "The Devon Agricultural Society," and "The celebration of the Anniversary of Chippenham Market." The meeting of the Devon Agricultural Society was the tenth from its establishment, and was numerously attended. The Chairman referred to some returns, shewing the increased produce of cattle, sheep, and wool, as regards number and quantity in this county, as well as the improved weight of each animal, noticing a fact which perhaps may be unknown to most of our readers, namely, that in 1750, the average weight of each bullock slaughtered was 370 pounds, in 1831, the average was 800 pounds each. So also of sheep; in the first period, the average weight was only 28 pounds each, whilst in the latter they were 8 pounds each.—*London paper*.

FACTS WORTHY OF CONSIDERATION.

Five millions of agriculturists in Great Britain furnish subsistence for her population of sixteen or eighteen millions of people. Great Britain imports but a small amount of provisions.

Twelve millions of agriculturists in the United States do not furnish subsistence for a population

of sixteen millions. We import bread-stuffs, now, from almost every country of Europe.

Whence this mighty difference? It is not owing to the natural inferiority of our soil, nor to the inferiority of our laborers in physical strength and industry. In both these we claim to have the advantage of the old continent;—but it is owing to the neglect of our legislators and statesmen, to patronise and aid this great primary branch of labor—it is for want of that aid which government and science give there, and which they do not give here. *There* we see established schools of agriculture, boards of agriculture. *Here* we see neither. *There* agricultural science constitutes a branch of instruction in the primary schools, and practical instruction is dispensed in those of higher grades. *Here* our schools do not afford instructions in either the science or practice. *There* large sums are disbursed from the public treasury to make agricultural surveys, to publish standard works on husbandry, and to call forth genius and skill, by liberal rewards and distinctions. *Here* government expends nothing for these objects. *There* agricultural improvement is promoted from state policy. *Here* it is neglected—because it has no *quid pro quo*—nothing to offer to gratify the short-sighted cupidity of party. Our statesmen are so greedy for the sixpence that is close to their eye, that they do not see the dollar which beckons them from the distance. The landed proprietors of Europe generally possess intelligence and influence, which they effectually exert, in combined effort to increase the products of their estates. *Here* the proprietors are too often uninformed and spiritless, having no concert, and tamely submitting to the miserable pittance which their public servants may find leisure or inclination to dole out to them.

[Cultivator.]

BOSTON FARM SCHOOLS.

A few mornings since we requested information as to the Boston Farm School, and looked to our contemporaries of the Boston Press for an answer. But on Thursday evening, we received the subjoined article, the obliging author of which, will accept our thanks for his kind attention; he has, by omitting his name, left us without the means of making our acknowledgement in person.

SIR,—I recently paid a visit to the Farm School on Thompson's Island, in Boston harbor, and have seldom been more interested in an establishment of the kind.

There were originally two corporations, "*The Boston Asylum for Indigent Boys*," and "*The Proprietors of the Boston Farm School*," and in 1835 they were incorporated together, as "*The Boston Asylum and Farm School for Indigent Boys*." The contribution of fifty dollars in one payment, makes the contributor a member of the corporation for life, and an annual contribution of three dollars makes the contributor an annual member of the corporation. They have power to hold \$75,000 in real estate and \$100,000 in personal estate; and all the funds are pledged by the charter to the relief, instruction and employment of indigent boys. They are authorised to receive any indigent boy, above the age of five years, at the request of his parent or guardian, and to accept from his father or (in case of his death) from

the mother or guardian, a surrender in writing of the boy, to the care and direction of the corporation. Indigent boys who have no parent or guardian within the commonwealth and who reside in Boston, may also be received.

The subjects of the school are required by the charter to be instructed in moral and religious duties and the learning usually taught in the common town schools, and when of suitable age, they are to be employed in a regular course of labor, and be so instructed in agriculture or such other useful occupations as to prepare them to earn their own livelihood.

Another provision of the charter authorises the corporation to retain and employ such boys, on their farm, after they are of suitable age to be bound out, until they are twenty-one, or they may bind them out in virtuous families as apprentices. And boys who have been received, without any formal surrender to the corporations, merely to be restrained and instructed, may be withdrawn either from the institution or from the person to whom he may have been bound by the institution, upon paying the expenses incurred by the corporation for his relief, support and instruction.

The original purpose of the projectors of the Farm School, was to provide for the rescue and education of idle and morally exposed children in the city of Boston. The asylum for indigent boys was intended principally for orphans and will not receive vitiated children of 12 or 14 years old, nor give employment to such as it did receive. The House of Reformation was a municipal institution (like our House of Refuge) and received only those who were committed by the magistracy. To establish a *school of industry* to which children already corrupted, or beyond parental control or greatly exposed to corruption, might be sent, without the intervention of legal process, seemed a most desirable object. In January, 1832, a private subscription was made of \$23,000. In the summer of 1833, Thompson's Island, in Dorchester Bay, was purchased by the association, and a spacious building erected, affording accommodations for the officers and for three hundred children. In March, 1835, the asylum for Indigent Boys was united in the plan, and incorporated together as before mentioned.

The overseer of the farm is Capt. Chandler, a practical farmer, of good sense and good temper; a steady, thoroughgoing man, and withal a good disciplinarian. He very courteously accompanied me through all the departments of the institution, and explained to me its various management.—About 100 boys were at the place, nearly three-fourths of whom were natives of Boston; of the balance, more than half were natives of New-England. The mass of the boys are from 9 to 12 years old, six or seven only being under nine and about the same number over twelve.

[From Bridgeman's Gardener's Assistant.]

CHOICE SELECTION OF APPLES.

In order to assist the reader, to make a judicious choice of fruit trees, I have furnished a short description of such sorts as can be best recommended. Previous to making this selection, I carefully perused "*Prince's Pomological Manual*," also such parts of "*Kendrick's American Orchardist*," and "*Lindley's Guide to the Orchard and*

Fruit Garden," as were applicable to my subject; besides these important guides, I had the select catalogue of different nurserymen before me, and have chosen such only as have been most generally recommended; in doing this I have had difficulties to contend with, the nature of which none but those who have duly considered the subject can form any idea. The facility with which seeding plants are raised, and the paternal fondness with which people are apt to regard their own seedlings, have occasioned hundreds of names to appear in the various catalogues, which tend not a little to swell the large and increasing list of fruits.

In many instances, the English, French, Spanish, and other names, provisional, local, and barbarous, are given to the same variety, consequently some fruits appear in the different catalogues under all the varied names; and the patience and labor necessarily requisite for ascertaining what are worthy of cultivation, and what are really distinct varieties, are correspondingly great.

The annexed list and description of the first fifty varieties of apples, was politely furnished by Wm. R. Prince, Esq. author of the "*Pomological Manual*," "*Treatise on the Vine*," &c.; in making out the other lists, I have generally adopted the names given in the catalogue of Michael Floy and Sons, of the Harlem Nursery, as a heading; and have caused the synonymes, or names by which the same variety is known, or has been called, to be printed in italics; thus, my lists of about 300 varieties of the various sorts of fruit, will embrace what has been deemed by some as different varieties, perhaps to the number of a thousand.

APPLES.

1. JUNE EATING, *Juniting on Geniton*.—The fruit is small, of a roundish form, and yellow color; it ripens in July; the pulp is tender and juicy; the tree is a good bearer, and of small low growth.

2. EARLY RED MARGARET, *or red June eating*.—The fruit is small and roundish; color red striped; the pulp is sweet, and of pleasant flavor; it ripens in July.

3. SPRING GROVE.—The fruit is small, of a conical form, and pale green color; it is ripe in July, and continues till September; the pulp is soft and juicy; tree hardy, a great bearer, and the fruit chiefly used in the kitchen.

4. PRINCE'S YELLOW HARVEST, *or July Pipin*.—The fruit of a medium size, depressed; of a pale yellow color; the pulp is tender, slightly acid but of an excellent flavor.

5. SINEQUANON.—The fruit of a medium size, roundish, but somewhat depressed; of a greenish color, and very highly flavored; ripe in July.

6. WHIAE ASTRACAN.—The fruit is roundish, angular at the sides, of a medium size; the color whitish faintly streaked with red on the sun side, and covered with a white bloom; it ripens in August, and the pulp is very tender, pleasant and delicate.

7. GOLDEN PEARMAIN.—The fruit large, roundish, and of a deep red and yellow color; it ripens in August, and continues till October; pulp soft and sweet; a hardy tree, but not large; a good bearer, and the fruit much esteemed.

8. **SUGARLOAF PIPPIN.**—The fruit of medium size, ovate, or oblong; of a pale yellow color; the pulp firm, but juicy, and of a highly pleasant flavor; it ripens early in August.

9. **HAWTHORDEN.**—The fruit is large, rather flat, and of a pale green color; it ripens in August, and continues till January; the pulp soft, juicy and acid; a very hardy tree; a great bearer, and the fruit good for all kitchen purposes.

10. **RED AND GREEN SWEETING.**—The fruit large, of oblong shape; green color, striped with red; ripens in August and September. The pulp is very sweet, tender, and of pleasant flavor.

11. **BORSBORG.**—Fruit medium size, conical form, and of a yellow green color; it ripens in September, and continues till February; the pulp is firm, and of an aromatic flavor; tree of low growth, a middling bearer but an excellent fruit for the table.

12. **FALL PIPPIN.**—The fruit is very large, of a roundish shape; yellow color; the pulp very tender, and of good flavor; ripens in September and October.

13. **OLD GOLD PIPPIN.**—The fruit small, roundish, and of a gold yellow color; it ripens in September and October; flesh firm and sweet, fit both for the dessert and kitchen.

14. **PUMPKIN SWEETING.**—Fruit large, of pale yellow color, pulp very sweet and pleasant; ripens in October and November.

15. **NEWTOWN SPITZENBERG.**—The fruit of medium size, roundish and depressed; color of a pale yellowish ground, greenish where shaded, but red next the sun; pulp very sweet, rich and pleasant; ripens in October and November.

16. **WOOD'S TRANSPARENT.**—Fruit small and flat, of a green and yellow color; ripens in October, and continues till February; flesh firm and juicy; tree hardy, a great bearer, and excellent fruit.

17. **SWEET BOUGH.**—Fruit large, ovate, of pale yellow color; tender, sweet, and pleasant in flavor; ripens in August.

18. **RIESTONE PIPPIN.**—Fruit of medium size, roundish, and partially depressed; of a pale yellow color, tinged with red; pulp slightly acid, and of fine flavor; ripens in November, and continues till April.

19. **HOLLAND PIPPIN.**—Fruit medium size, ovate form, and of a gold and green color; it ripens in October, and continues till February; flesh crisp and firm; tree hardy and large; a good bearer and much esteemed fruit.

20. **SEEK NO FURTHER.**—Fruit of medium size, depressed; of a whitish color, flesh very tender, and of pleasant flavor; ripens in November, and continues till March.

21. **ESOPUS SPITZENBERG.**—Fruit large and oval; of red color; flesh yellowish; slightly acid, and of the finest flavor; ripens in October, and continues till February.

22. **PENNOCK RED WINTER.**—Fruit very large and compressed; of deep red color; flesh tender, juicy, and of sweet and pleasant flavor; ripens in November.

23. **FLUSHING SPITZENBERG.**—Fruit large, roundish, somewhat compressed; red striped color, and of sweet and pleasant flavor; ripens in November, and continues till March.

24. **RED WINTER SWEETING.**—Fruit large and compressed; of reddish color; and of sweet and delicious flavor; ripens in November, and continues till March.

25. **GREEN NEWTOWN PIPPIN.**—Fruit medium size compressed; of pale green color; flesh very high flavored; ripens in December, and keeps till June.

26. **BRIGGEWOOD PIPPIN.**—Fruit small, nearly globular; color bright yellow tinged with red, pulp exceeding sweet, and highly perfumed.

27. **DOWNTOWN PIPPIN.**—Fruit of moderate size, cylindrical, flattened at the ends; of yellow color, with numerous specks; flesh firm, rich and subacid; ripens in October and November.

28. **ENGLISH NONPAREIL.**—Fruit of medium size, and flat; of a greenish yellow colour, with a slight russet; flesh firm, rich and aromatic; ripens in November, and continues till May.

29. **FENQUILLIT GRIS.**—Fruit rather small, roundish, ovate, of a yellowish gray color, with a slight russet; pulp tender, saccharine and highly flavored; ripens in November, and continues good till February.

30. **RED WINTER CALVILLE.**—Fruit large and oblong, of a pale red color; deeper next the sun; flesh tender, and of pleasant flavor; ripens in November.

31. **DREDGE'S BEAUTY OF WILTT.**—Fruit medium size and oval form, of a bright yellow, spotted with red; it ripens in October, and lasts till March; pulp firm and juicy; a great bearer, and the fruit good for all kitchen purposes.

32. **ORTLEY PIPPIN.**—Fruit of large size, pale yellow color, often a tinge of Red on the sunny side; flesh firm and highly flavored; ripens in November, and lasts till April.

33. **LEMON PIPPIN.**—Fruit of medium size, oval shape; color yellowish green; flesh firm, pleasant, but not high flavored; ripens in November, and keeps till March.

34. **BLENHEIM PIPPIN.**—Fruit large, roundish, of a yellowish color, tinged with red next the sun; pulp sweet and high flavored; ripens in November, and keeps till March.

35. **GRAVENSTEIN.**—Fruit rather large and compressed; of a yellowish green color, striped with red, and high flavored; ripens in October, and lasts till January.

36. **ALEXANDER.**—Fruit very large, somewhat cordate, smallest at the crown; of a greenish yellow color, striped or marbled with red; pulp tender, sweet, rich and aromatic; ripens in October, and lasts till February. Though a large, hardy tree, it is a medium bearer, but a magnificent fruit.

37. **FRANKLIN GOLDEN PIPPIN.**—Fruit a medium size, conical, of a golden yellow color, with gray and dark colored specks; it ripens in No-

vember, and continues till March; flesh firm and highly aromatic, tree rather slender, and middling bearer, but an excellent fruit.

38. **RAMBOUR FRANC.**—Fruit large and compressed; of pale yellow color, tinged with red; flesh tender, with a slight acidity; ripens in October and November.

39. **NEWARK KING.**—Fruit large, oval shape; color red, striped with yellow; pulp of pleasant flavor; ripens in October, and lasts till January.

40. **PRIESTLY.**—Fruit large, oblong; of a dull red color, faintly striped; the flesh of pleasant and aromatic flavor; ripens in December, and continues till April.

41. **HUGHES' GOLDEN PIPPIN.**—Fruit small, round, but partially depressed; of yellow color, with numerous specks; flesh firm, juicy, rich, pungent and agreeable; ripens in October, and lasts till January.

42. **BEAUTY OF KENT.**—Fruit rather large, and of irregular shape; of a yellowish green color, mottled with red; flesh firm and juicy, with a pleasant acid flavor; ripens in October, and continues till January.

43. **MONSTROUS PIPPIN.**—Fruit of enormous size, often weighing twenty-five ounces or more; of a pale lemon color; flesh tender, and of sprightly flavor, excellent for cooking; ripens in October, and continues fit for use till January.

44. **LONG ISLAND RUSSET.**—Fruit of medium size, depressed; russet color, and of pleasant flavor; ripens by November, and continues till March.

45. **WINTER SWEET PEARMAIN.**—Fruit small, roundish; of a dull red color, with green stripes; pulp very sweet, and of peculiar flavor; ripens in November, and keeps till March.

46. **LADY APPLE, or Pomme d' Apis.**—Fruit small, flat; of pale yellow color, tinged with a deep red on the side; flesh crisp, sprightly and pleasant; ripens in November, and continues till April.

47. **POMME GRISE.**—Fruit rather large, somewhat depressed; russet; of pleasant flavor; ripens in November, and lasts till March.

48. **NORFOLK BEAUFIN.**—Fruit middling size, flattish, and a deep red and pale green color; it ripens in November and December, and lasts till August; flesh firm and savory; tree hardy and upright, an good bearer; fruit excellent for use in the kitchen.

49. **EARLY CROFTON, or Irish Peach Apple.**—An Irish apple, of the middle size and flattish shape; of olive green color, much variegated with red; has a rich saccharine flavor; ripens in August; it is much esteemed for the dessert, and excellent also as a sauce apple. The tree grows well, and is not apt to canker.

DOWELL'S PIPPIN.—In size and form this apple resembles the Ribstone Pippin, but it is more pointed at the head, and the eye is sunk in a more confined and deeper cavity; the skin is green, nearly covered with a clear thin russet, and a slight tinge of brownish red on the sunny side; an excellent dessert apple from October to Christmas.

52. **BARCELONA PEARMAIN.**—*Glaze Rouge, Kleiner Casseler Reinette, Reinette Rouge, Reinette Housse, Reinette des Carmes.* Fruit of medium size, oval, not angular; color brownish yellow in the shade, but deep and red next the sun; flesh firm, yellowish, with a rich aromatic, but slightly agreeable acid. A dessert apple from November till February. The tree a good bearer.

53. **BELL FLOWER.**—A very large and beautiful apple, its color bright yellow, with an occasional blush on the sunny side; its form oblong; the flesh tender, juicy, rich and finely flavored, and is alike excellent for the dessert or for cooking. It ripens early in November, and will keep all the winter.

54. **COURT PENDU.**—*Capendu, Court Pendu Plat, Garnon's Apple.*—An estimable dessert apple, of nonpareil size [small;] very flat in shape, the color yellow, a good deal covered with full red; it is of a high saccharine flavor and of close consistence; the fruit keeps till February or March. The tree grows upright, and bears well.

55. **MALCARLE, Charles Apple, Mela, Carle.**—A far-famed fruit. In the climate of Italy, this is supposed to be the best apple in the world. It is cultivated extensively in the territories of Genoa, as an article of export and commerce to Nice, Barcelona, Cadiz, and Marseilles. The fruit is rather large, its form inclining to globular. Its beautiful waxen skin is a little marbled with a very faint green near the eye; its color in the shade is a pale yellow, tinged with flaming crimson next the sun; the flesh is white, tender, delicate, sweet, with the fragrant perfume of roses. It ripens in September, and will keep till spring.

56. **STROAT, Strart.**—This is an autumn fruit; it is stated to be tender, juicy, and well flavored; and, according to Mr. Buel, in excellence it is not surpassed by any fruit in its season; a native.

57. **SWAAR APPLE.**—It is a highly celebrated winter table fruit in some parts of New Jersey; it is a large green apple of great and uncommon flavor and richness; highly deserving cultivation in every collection of fine fruits.

58. **GOLDEN HARVEY, Brandy Apple.**—A dessert apple, not larger than the Golden Pippin; color light yellow, with a flush of red, and embroidered with a roughish russet. It is called Brandy apple from the superior specific strength of its juice; is of remarkable close texture, very rich in flavor, and will keep till April or May.

59. **SIBERIAN HARVEY.**—This fruit which was raised by Mr. Knight from the Siberian Crab and Golden Harvey, is stated to be a small globular fruit, of a bright gold color, stained with deep red on the side next the sun, the fruit growing in clusters on the slender branches; the juice exceeding sweet; ripe in October. Specific gravity of its juice, 1091.

60. **PINE APPLE RUSSET, Hardingham's Russet.**—This delicious apple is above the middle size; roundish, ovate; skin pale greenish yellow, with white specks, and partially russety; juice abundant; flesh of a spicy, aromatic, pine apple flavor; hence its name; ripe in September.

61. **HARRISON.**—This fruit is much celebrated in New Jersey as a cider apple; it is somewhat ovate, below the middle size; the skin is yellow, with black spots; flesh yellow, firm, rich and sprightly. Ten bushels will make a barrel of exquisite cider.

62. **CAMPFIELD, OR NEWARK SWEETING.**—This apple is next in reputation, as a cider fruit, to the Harrison, and is often mixed with that apple in equal proportions when ground; it is of the middle size, skin smooth, of red and yellow color; the flesh is white, firm, sweet and rich.

63. **GRANNIWINKLE.**—Fruit of moderate size, rather oblong; the skin a dark red, somewhat rough, flesh yellow, sweet and rich. It is commonly mixed with the Harrison for making cider of a superior quality; ripe in November.

64. **HEWD'S VIRGINIA CRAB.**—From this fruit is obtained the celebrated Crab Cider; it is of small size, nearly round; skin of a dull red, streaked with greenish yellow; the flesh is fibrous and astringent; juice acid and austere.

PRESERVING WINTER APPLES.

Winter apples should be gathered as soon as the mature ones begin to fall from the trees; they should be carefully picked by the hand, and never shaken from the tree. If intended to be carried to market this fall, they may be packed in chaff or soft straw to prevent bruising. But it would doubtless in most instances be more profitable to keep apples till spring, on account of their high price at that time. The same apples that are sold in autumn for 25 cents, often, when kept till spring, bring 75 cents or a dollar per bushel; while the loss by rotting, when proper precautions are taken to preserve them, is but comparatively trifling. An excellent mode of preserving them, is to pack them away in dry sand. The sand should be previously well dried in the sun. This mode prevents them from rotting one another by contact; the sand absorbs all unnecessary moisture from the fruit, and thus lessens the liability of rotting; and partially excludes the air. Well dried saw dust would probably be still better, provided it is prevented from absorbing moisture by being excluded from the air; but it should be of a kind of wood which will not injure the flavor of the apples.

Where this method cannot be adopted, a good way to keep them is to spread them in shallow bins, (say 5 or 6 inches in depth,) in a dry cool place, where the temperature should be kept as nearly as possible a little above freezing.

The following, according to Kenrick, is a mode of preserving apples, almost universally adopted by the most experienced in the vicinity of Boston, where large quantities of fine winter fruit are cultivated and put up for use. By this mode, we are assured, apples under very favorable circumstances, are frequently preserved in a sound state, or not one in fifty defective, for a period of seven or eight months. "The fruit is suffered to hang on the tree to as late a period as possible in October, or till hard frosts have loosened the stalk, and they are in imminent danger of being blown down by high winds; such as have already fallen are carefully gathered and inspected, and the best put up for early winter use. They are carefully gathered from the tree by hand, and as carefully laid in

baskets. New, tight, well seasoned flour barrels from the bakers, are usually preferred; the baskets being filled, are cautiously lowered into the barrels and reversed. The barrels being quite filled, are gently shaken, and the head is gently pressed down to its place and secured. It is observed that this pressure never causes them to rot next the head, and is necessary, as they are never allowed to rattle in removing. No soft straw or shavings are admitted at the ends; it causes mustiness and decay. They are next carefully placed in wagons and removed on the *bulge*, and laid in courses in a cool airy situation on the north side of buildings near the cellar, protected by a covering on the top of boards, so placed as to defend them from the sun and rain, while the air is not excluded at the sides. A chill does not injure them, it is no disservice; but when extreme cold weather comes on, and they are in imminent danger of being frozen, whether by night or day, they are carefully rolled into a cool, airy, dry cellar, with openings on the north side, that the cold air may have free access; they are laid in tiers, and the cellar is in due time closed and rendered secure from frost. The barrels are never tumbled or placed on the head. If fruit is gathered late, and according to the above directions, repacking is unnecessary, it is even ruinous, and should on no account be practiced till the barrel is opened for use. It has been fully tried."—*Genesee Farmer.*

[From the Farmers' Cabinet.]

ON THE DEPTH OF PLOUGHING.

That ploughing deep is of the utmost importance to make land productive, no one will deny. Yet how deplorable is it, to see so many of our farmers, instead of *ploughing* their land, persist in the old and ruinous practice of merely *skimming* it. Soils of the best quality, may be very shortly impoverished by shallow ploughing; while on the other hand, those of an inferior quality, may be materially improved by judicious ploughing. Why, it may be asked, are swamps and bogs so inexhaustibly fertile after being drained? One simple reason is, because they are possessed of a soil of very considerable depth. Then why not plough deep, in order to increase the depth of the soil of upland. Lands which have been ploughed shallow, on receiving the first deep ploughing, will generally fail in some measure in producing a good crop, in consequence of turning up the clay. This has disheartened some that have made trial of it, so as to abandon it immediately again. But the action of the sun and atmosphere on the upturned clay, will contribute greatly to its fertilization. This being ploughed down, and the former surface turned up again, with the addition of proper manures will give land a deep soil and render it fertile and productive.

But few persons are aware of the depth to which the fibrous roots of grass descend into the ground. It has been discovered with very few exceptions, that they reach to the bottom of soils however deep; consequently, plants growing in a deep soil will be much better protected against the effects of drought, than those growing in a shallow soil. I would suggest, therefore, that land in all ordinary cases, be ploughed not less than eight inches deep. Will it not be much better to suffer partially in one crop, and thereby to have afterwards a manifold increase; than to

be always toiling, with very imperfect returns for our labor.

For the sake of neatness in farming, and to prevent high ridges and deep furrows, I would recommend that the first three or four furrows at the commencement of lands, and at the finishing of them, and at the edge of fields, be somewhat shallower than the remainder of the field.

Chester county, Sept. 15th, 1837.

MANAGEMENT OF SHEEP.

A writer in the N. Y. Farmer, whose principal aim in several communications has been to direct attention to the importance of protecting sheep in the winter season, farther says :

All my shearings previous to that of '36, my sheep have yielded only from 2 lbs 7 1-2 to 2 lbs 9 oz. per head. This variation, I discovered, was to be attributed to no other cause than the difference of winter seasons being colder or milder.—When the latter, an increased weight of fleece was a certain consequence. The winter of '36 my sheep were duly protected, and the yield was an average of 2 lbs. 10 1-2 oz. per head, notwithstanding 300 of the flock were yearlings, which, all wool-growers are aware, on account of deficiency of size, yield but light fleeces. But this so much exceeded any former yield, I was well persuaded it was to be ascribed to *warm shelters*. I forbore, however, to mention this in my last communication, preferring to wait until the present clip was off, but fully confirmed in the belief that my hopes would be realized of an increased average weight beyond that of last year. I am happy to say that my hopes were well founded, and have been more than confirmed. The number of my flock sheared amounted to 1751, and the entire product is 5082 lbs. making an average of over 2 lbs. 14 oz. per head. With all those, doubtless, who are inexperienced in growing of fine sheep this may seem not an extraordinary yield; but those who are, know that it is, and that fine fleeces and light go hand in hand. At all events, taking into view the same number of sheep, with the same proportion of yearlings, viz. 470, and the quality of wool, of which some judgment can be formed from the price it has commanded in the Boston market for cash, and stated in a former communication, I challenge any wool-grower, either in the state or out of it, to go beyond it.

But a few words here as regards the weight of fleece of Saxony sheep, in general, may be considered in connection as apposite.

I have been informed by Maj. Grant, of Walpole, N. H. who has as fine, if not the finest, flock of Saxons in the United States, that the average weight of his clips is but 2 1-2 lbs. and some years is scarcely beyond 2 1-4 lbs. per head. As regards the flock of Mr. Grove of Hoosack, which is exquisitely fine, it appears from a statement of his, that the average of his sheep is nearly or full 3 lbs. Considering the quality of his wool, it is a most extraordinary product. But the system of management of those gentlemen is perfect. Their sheep are closely housed during winter, and if I mistake not, are not exposed at all. In this particular I differ from them:—a spece of 8 or 10 feet wide is always open to admit of mine going in or out at pleasure. I now call upon the doubtful and sceptical to appeal to

these gentlemen, and all others whose system of management are similar, and ascertain what would now be the condition of their flocks if they had not been adequately protected, and also to decide the point I have endeavored to maintain, viz:—whether protecting sheep will or will not increase the weight of fleece. I will pledge myself to say a unanimous affirmative will be the answer.

COOKED FOOD.

Why cooked food should be so much more nutritious for man or animals than that which is uncooked, has furnished matter for some inquiry among the observers of nature. That it is so, does not admit of a doubt. Every farmer knows this, though perhaps few act up to their knowledge in this respect. Corn ground and made into pudding is worth nearly as much again for fattening pork, as when fed whole; this the experiments of Mr. Colman and others prove; and a similar though perhaps not equal value, is given to potatoes, apples, or other kinds of food usually fed to pigs. In the northern countries of Europe where food for both man and beast is scarce, and the utmost economy is of course necessary, the practice of making oats or barley into bread for horses is practised to a considerable extent. Considerable quantities are made at a time, and little difficulty is found in the cool climate of the north in preserving them fit for use. It is calculated that the grain this way is equal to the weight of water used in manufacturing the bread or cakes, which is about one third of the weight of the original flour worked up. Cut hay, mixed with a large proportion of finely chopped straw, and some of these oat cakes broken up fine, constitutes the food of the horse or ox, and it is one on which they labor well and thrive abundantly.—The hull or bran of the oat is of course used with the flour.

Some light appears to have been thrown on the causes which render cooked food so much more valuable than raw, by the researches of Dutrochet, Dumas, and more lately Raspail, who has devoted much time, aided by the best of microscopical instruments to the discovery of the original nutritive particles in food, and the changes they undergo in the process of preparing for nutrition. According to this philosopher the nutritive matter in grain or roots, is composed of, or rather contained in smooth white globules, differing in size in different grains or roots. Thus in wheat they are 2 1000 parts of an inch; in the potato double this size—while in buckwheat they are only 1.10.000 part of an inch in diameter. Pure flour, or starch would seem to be but a mass of these globules in their natural state. Raspail ascertained that these minute globules consist of an envelope and an inclosed kernel, constituting the nutritive matter. These globules are insoluble or unalterable in cold water, but at a heat of 122° the kernel expands, and the envelope bursts, but without being decomposed. It is these floating envelopes that constitute the starch of the laundry. The investigations of these philosophers seem to have established the following facts as stated by Raspail:

"1st. That the globules containing flour, meal, or starch, whether contained in grain or roots, are incapable of affording any nourishment as animal food, till they are broken.

"2d. That no mechanical method of breaking or grinding is more than partially efficient.

"3d. That the most efficient mode of breaking the globules, are by heat, by fermentation, or by the chemical agency of acids or alkalies.

"4th. That the *dextrine* [the nutrient part] which is the kernel as it were of each globule, is alone soluble, and therefore alone nutritive.

"5th. That the envelope or shells of the globules, when refused to fragments by mechanicism or heat, are insoluble, and therefore not nutritive.

"6th. That, though the fragments of these shells are not nutritive, they are indispensable to digestion, either from their distending the stomach and bowels, or from some other causes not understood, it having been proved by experiment that concentrated nourishment, such as cane sugar, essence of beef, or osmazome, cannot long sustain life without some mixture of coarser and less nutritive food.

"7th. That the economical preparation of all food containing globules of secula, consists in perfectly breaking the shells, and rendering the kernel or *dextrine* contained in them soluble, and digestible, while the fragments of the shells are at the same time rendered more bulky, so as the more readily to fill the stomach."—*Genesee Farmer*.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal, has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.

Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition.—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,

JOSEPH H. JONES, President.

RICHARD J. BOWIE, Sec'y.

Rockville, Montgomery county, Md. Oct. 20, 1837.

GEESSE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnet's stock, BOTH PURE WHITE.

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ROBERT SINCLAIR, sen.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel	94	98
White,.....	"	92	95
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 50	
" " wagon price,	"	8 25	
City Mills, super.....	"	8 50	8 75
" extra	"	8 75	9 00
Susquehanna,.....	"		
Rye,.....	"		
Kiln-dried Meal, in hhds.	bhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	8 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	88
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappry, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,....	"	8 00	10 00
" good yellow,....	"	8 00	12 90
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 90	1 95
Red, best.....	"	1 85	1 90
Maryland inferior	"	1 25	1 60
WHISKEY, 1st pf. in bbls.....	gallon.	39	40
" in hhds.....	"		37
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,.... do.....	"	10½	10½
Middlings,.... do.....	"	do	do
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, —...—No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....par		Farmers Bank of Virgi. 1½a1½
Branch at Baltimore,....do		Bank of Virginia,..... do
Other Branches,.....do		Branch at Fredericksburg, do
MARYLAND.		Petersburg,..... ½
Banks in Baltimore,....par		Norfolk,..... 1½a1½
Hagerstown,.....½a		Winchester,..... ½
Frederick,.....do		Lynchburg,..... 1½ ½
Westminster,.....do		Danville,..... 10
Farmers' Bank of Mary'd, do		Bank of the Valley, .. 4
Do. payable at Easton,.... 1		Branch at Romney, .. do
Salisbury,.... 2 per ct. dis.		Do. Charlestown, .. do
Cumberland,..... 3		Do. Leesburg,.... 1½
Millington,.....do		Wheeling Banks,.... 3a1
DISTRICT.		Ohio Banks, generally 6a7
Washington, } Banks, ½p.c.		New Jersey Banks gen. 5
Georgetown, } Banks, ½p.c.		New York City,..... 4
Alexandria, } Banks, ½p.c.		New York State,.... 3a4
PENNSYLVANIA.		Massachusetts,.... 3a3½
Philadelphia,.....½a		Connecticut,..... 3a3½
Chambersburg,..... 1		New Hampshire,.... 3a3½
Gettysburg,.....do		Maine,..... 3a3½
Pittsburg,..... 3½		Rhode Island,.... 3a3½
York,..... 1		North Carolina,.... 5
Other Pennsylvania Bks. 4		South Carolina,.... 8a10
Delaware [under \$5].... 6		Georgia,..... do
Do. [over 5]..... 2		New Orleans,..... 12
Michigan Banks,.....10		
Canadian do.....10		

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
oc 3 Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & Co.,
Light, near Pratt-street, Balt.

Sept. 10.

3t.



MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,

CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz ,

11 inch Boxes, \$30, extra Knives for do. per sett \$4,
14 " " \$45, " " " " 5,
20 " " \$75, " " " " 8.

CORN SHELLERS—hand machines \$20, horse do. 40. 1500 PLOUGHS, of various sizes and patterns, among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each. CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each. DRILL and SOWING MACHINES at 6,20 a \$100 each. FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox YOKES and BOWS, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES, &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

MULBERRY TREES.

In addition to the 200,000 Morus Multicaulis and other varieties of Mulberry Trees, already advertised by us, we have the following—

20,000 Brussa Mulberry, 5 to 7 feet high, with large leaves and very hardy, and 10,000 of smaller size.

25,000 of the variety called CHINESE MULBERRY.

Orders per mail will meet prompt attention, and priced catalogues of these and of all kinds of Fruit and Ornamental Trees, Shrubs and Plants, Bulbous Roots, Garden, Agricultural and Flower Seeds, will be sent to every applicant.

WM. PRINCE & SON.

Linnæan Garden and Nurseries, near N. York.

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MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which are ready for sale.

EDWD. P. ROBERTS.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 29.

BALTIMORE, MD. NOVEMBER 14, 1837.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. W. corner of
Baltimore and North streets, over the Patriot office, at two
DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

TUESDAY, BALTIMORE: NOVEMBER 7, 1837.

REMOVAL.

The office of the "Farmer and Gardener" is removed to the North West corner of Baltimore and North-sts., over the Patriot office, opposite the Franklin Bank, and near the Post-office.

ECONOMY IN FEEDING.

There is, perhaps, no department in the business of Agriculture so little attended to in this country as that of economy in the feeding of stock, and none which requires more attention.—It has been demonstrated time after time that the mere bruising of oats, or corn, or the cutting of hay, adds fully one-third to its value as food: that is, that one-third less in quantity of either will answer. That this is the fact we have no doubt, and have long been surprised that so few persons, owners of stock, adopted this mode of feeding.—No one who has watched with a discriminating eye the effects of feeding animals with whole grain but must have observed the fact that a large portion comes from them precisely in the same condition it was received by them into their stomachs. The reason of this is obvious: their stomachs have become so enfeebled, by being long used to unbruised grain, corn, or oats, as to be unable to digest the regular portions of these substances daily given them. This fact alone should bring about a reformation, as it is calculated to convince any one capable of drawing just deductions from well established principles, that all food which is voided in an undigested state, so far from having done any good, must have been the cause of much positive harm, as all bodies which lie in the stomach in that condition, are so many sources of irritation, derangement, and disease. But there is another view, which we do not recollect to have seen enforced,—it is this: that by crushing or bruising all grain food given to cattle, the manure will be the more valuable. How of-

ten do we see a piece of ground which has been manured from the horse stable so covered with oats as to induce the belief in a stranger that oats had absolutely been sown, when in fact they had sprung from the undigested grains which had passed through the horses. The trouble which such foul manure imposes upon the husbandman we need not mention, as sad experience has made every one intimate with it. If then one-third in quantity of grain can be saved; if that fed is more nutritious, if the manure made from it is cleaner and better, why should farmers and planters hesitate a moment? Why do they not at once abandon a practice so replete with evil? We leave the solution of these questions to those interested, and shall proceed to another branch of our present business.

What is the best food for horses in winter, economy considered?

Before we reply to this question we will premise, that we may set it down as a safe calculation, that the average yield of oats and corn throughout the United States is not more than 25 bushels to the acre. There are, to be sure, many districts of country in which there are numerous instances of quantities far above this produced upon an acre of ground; but then when we speak of the average for the whole country, we consider it would be unsafe to go beyond the quantity we have named. In 25 bushels of grain there are 200 gallons, and as the usual quantity given to a horse at a meal is one gallon, and he is fed three times a day, 25 bushels, or the product of one acre, will be 66 $\frac{2}{3}$ days. Now let us see how stands the account with carrots. An acre of carrots planted on sandy loam well manured, say 20 double cart loads of short manure, if properly tended, that is thinned to the distance of 4 inches in the rows, and weeded and worked three times, will yield 300 bushels, and as there are 1200 pecks in that quantity, and 3 pecks will sustain a horse a day, so will 1200 pecks sustain him 400 days, or 4 horses 100 days, or 5 horses 80 days.—The advantage of such product for winter feed we think so obvious as not to require further illustration. Every farmer knows that there are long periods of time during the winter months when the horses on a farm do but little work, and during those periods the carrots are just as good

for them as either oats or corn, and require but little more trouble in their preparation, for if they be not very large the horses will consume them without cutting, so that all they require is washing, a labor which can be performed in 15 minutes for twenty horses. It is said that they are not as substantial food as either oats or corn: true they are not; but when horses are idle during winter, less substantial food will answer. Good hay and carrots will not only keep them in good heart, but fat, if they be properly attended to, are carefully watered, curried, and warmly kept. Carrots will keep buried in the open air from November till May, during all which period they may be advantageously fed to horses. The benefit which would arise to the farmer from such a course of feeding, will, we are certain, strike the most superficial observer, as it would enable him to sell more of his grain if he had a large surplus; and if the reverse, he would find his profit in the decreased demand upon his grainary. It may, and doubtless will, be said that the culture of the carrot is a troublesome one; but on the other hand we affirm that they are no more so than corn, if the latter be well tended: they require thinning, so do corn, they require to be kept clean, so do corn, and we affirm without the fear of contradiction, that they do not require to be oftener worked, and as we have demonstrated that they will go nearly six times as far, we recommend their culture to the consideration of our readers, and in so doing, discharge not only a duty, but one which we feel assured will be well received, because well intended.

Mammoth Oxen—There are now exhibiting on Commercial street, three of the most remarkable oxen ever raised in the country, owned by Messrs. John Barnes and Brecht. The ox Independence, 6 years old, weighs over 3100 lbs. was raised in Genesee county, by Mr. Chaplin, and fattened by Mr. Barnes, of this city. The ox Golden, 8 years old, weighs 2800 lbs., and the ox Pickaway, same age, weighs 2600 lbs., both raised and fattened by Mr. Deckea of Pickaway co. Ohio.

It is the intention of the owners, Messrs. Barnes and Brecht, to exhibit their oxen along the line of the canal, in a few weeks, on their way to New York city. The lovers of fat beef can feast their eyes on these noble animals with pleasure.—*Buffalo Star.*

THE CULTURE OF MANGEL WURTZEL OR FIELD BEET.

A few remarks on the culture of this crop, now the season has arrived for commencing it, may not be unacceptable.

THE SOIL

Is best when a clayey loam; but any soil if ploughed deep and well manured will produce good crops, as the principal requisite is depth and fertility.

THE SOWING

Should be done in the early part of May, although it is frequently performed later. Where the ground is very moist it should be sown upon ridges; but in ordinary cases, it succeeds best when planted in drills without ridging. T. and H. Little, of Newbury, Mass., who raised upwards of three tons to one acre, prepared the ground and sowed in the following manner: After one deep ploughing, the ground was furrowed two and a half feet apart, and the manure put into the furrows, and covered with the plough; a roller was then passed on the top of the ridge thus formed, to pulverise the lumps, level the surface, and press the soil and manure together. The seed were then dibbled with the finger over the manure, about 6 or 8 inches apart. John Hare Powel sowed his crop thus:—"The holes for the seed were made by a wheel, containing pegs in its circumference, which penetrated the ground about an inch, leaving intervals of four inches; the rows were made two feet asunder; two capsules [or berries] were dropped in each hole; the wheel of a common barrow was then passed over them, thus compressing the earth, and leaving a slight rut for the retention of moisture.

THE QUANTITY OF SEED

Per acre should be about four pounds; for although this is a large allowance, the expense is small when compared with the insurance of an even crop. Great care should be taken that the seed of the common red and white beet is not mixed with it. Unless the ground be very moist, the seed, before sowing, should be soaked about 48 hours in soft water. After the plants have come up, they should be thinned to about eight inches distance from each other in the rows.

THE AFTER CULTURE,

Consists principally in a free use of the cultivator; and in keeping the land perfectly clear of weeds. Col. Powel ascribes his success in the culture of this crop, to deep and thorough ploughing; to the use of cultivators, which complete the production of fine tilth; to the destruction of weeds on their first appearance, to leaving the smallest space upon which a horse can walk between the rows; and above all, to *planting the seeds of a proper kind upon a surface which is kept perfectly flat.* Gideon B. Smith of Baltimore, in 1832, planted one sixth of an acre, which had been intended for early corn, and had been manured the previous year. The seed were sown in drills two feet asunder, and eight inches apart in the drills, and covered as corn. When the plants were up a weeding hoe was passed over the field, and afterwards a small plough run through it twice, clearing out the weeds with a hoe. This was all the cultivation it had; and

the whole labor, including the original preparation of the ground, did not exceed two full days work for one man. The crop was upwards of 75 bushels, and might have been much larger, as there were many vacant places of 6 or 8 feet in length in the rows, and other places where the roots were injured by being crowded. The soil was a fair medium mould, a mixture of clay, sand, and vegetable matter.

THE PRODUCE PER ACRE,

Under ordinary culture, may be estimated from 600 to 1000 bushels. Where however, the ground is ploughed very deep, well manured, and well cultivated, much larger crops have been obtained, of which a few instances are here given.

Gideon Foster, of Charleston, Middlesex co., Mass. raised 43 tons to the acre.

The premium crop of Tristram and Henry Little, of Newbury, Mass., was 33 tons 10 cwt. and 14 lbs. to an acre, or more than *fourteen hundred bushels.*

Col. Powel inclosed certificates to the President of the Pennsylvania Agricultural Society, showing that *sixteen hundred and thirty-four bushels* of mangel wurtzel, weighing 78,448 pounds, were produced upon an acre and fourteen perches; and a part of the same field containing thirteen contiguous rows, produced at the rate of *two thousand and fifty-five bushels per acre*, weighing 44 tons, 5 cwt. and 27 lbs.

Henry Thompson, of Baltimore, raised in 1833, on less than one eleventh of an acre, 5 tons, 14 cwt. and 3 qrs., or at the rate of about *sixty tons to the acre.*

In good land, single roots of the mangel wurtzel often weigh nine or ten pounds, and sometimes even *fourteen or fifteen pounds each*; and J. A. Kenrick, of Newton, Mass. raised in 1833, a single root weighing no less than *thirty-six pounds.*

USES.

This root is admirably adapted for feeding nearly all domestic animals. It is the best of known food for store swine; and swine fatten upon it, yielding firm pork of good flavor, when fed to them raw, equally well as upon boiled potatoes, by which the fuel and labor of boiling is saved.—

Col. Powel says:

"My neat cattle prefer mangel wurtzel to any other root which I have offered to them. I have found its effects in producing large secretions of good milk, very great. * * * Its application as food for sheep is not the least important of its uses. Ewes yearn usually at the season when grass cannot be supplied. The health of themselves and the thrift of their lambs essentially depend upon succulent food being had. I am inclined to think that no small portion of the success which English breeders have met, is to be ascribed to the large stores of roots, which they always have at command."

In autumn, when the quantity of milk from cows often diminishes greatly, it may be restored by cutting the leaves of this plant, and feeding them. In some instances the quantity has been doubled by this means. The leaves soon grow again, and may be cut every fortnight.* Cows fed twice a day in winter, upon 20 pounds of the roots at a time, together with 4 or 5 pounds of hay or chopped straw, will, it is asserted, give as much milk as in summer.

In some instances when fed to cattle and sheep, this root is said to have produced *scouring*. This may be owing either to the soil adhering to the roots when eaten, or to the sudden commencement of feeding on them exclusively, instead of their being mixed with a proper proportion of dry food, such as hay, meal, or chopped straw.

This crop has several important advantages in its cultivation. It is little affected by changes of the weather; suffers little from drought; thrives in moist soils; is not attacked by any insect; and prepares the ground well for succeeding crops.—The roots may be kept sound and fresh for eight or ten months.

Farmers who value their land, would find it greatly to their interest to direct their attention more to the cultivation of this crop. It has been found that two tons of mangel wurtzel are equal to one of hay for feeding cattle in general. Any one may readily calculate from this, how much greater a number of cattle may be supported by this means, from a given quantity of land, than by the usual mode of feeding them exclusively on grass and hay. Supposing for instance that thirty tons of mangel wurtzel are the average product per acre, then we shall have an amount from one acre alone equal to from ten to fifteen tons of hay. Now if a method should be devised for raising this amount of hay from an acre, it would excite universal attention and inquiry; but this crop, although possessing advantages not less important, is almost entirely neglected.

*It is probable however that this production of new leaves is in a greater or less degree, at the expense of the root, although very large crops have been raised where this course has been pursued.

[From the Southern Agriculturist.]

METHODS OF REVIVING WORN-OUT LANDS.

AUGUSTA, GEORGIA, AUGUST 1837

Mr. Editor,—I have just returned from a ride into the interior of this State, and have seen many methods of culture, which, to me, were novelties. Nothing, however, pleased me more than the growth of cotton in some fields, which I was told had been planted for twenty years. These Georgians have a dash of energy, that has ever hurried them to the front, in the march of improvement. Would you believe it; a field of cotton, that had been exhausted by the workings of twenty years, exhibited the promise of not less than one thousand weight of seed cotton to the acre. How? you will ask. Tell the wherewithal? The wherefore? Nothing abstruse, Mr. Editor. No metaphysics in it. No jargon of the words alkalis and acids—nitrogen oxygen—carbon and bones? Nothing of the kind: it is only this,—What was taken out of the soil is put back into it. The Georgians, I understand, replenish their exhausted fields in this way. Rye is planted broad cast early in the fall; allowed to grow until pea-season, and then the whole is planted in peas broad-cast: when the peas ripen if the crop be abundant, you may pick them, and after this is done, turn the whole under with the plough. If the rye come to maturity before you are ready to plant peas, you may top the grain; or top it in the milk, if you have time. If the land be very

poor, this plan is usually adopted two successive seasons, and then it will afford an abundant crop of any thing. The appearance of the soil is now changed: it acquires a vegetable mould, not to be exhausted for many years. You may readily conclude what the effect will be upon the soil by turning under, first, a growth of rye, and then a growth of pea-vines. Nothing, to my own knowledge, is more renovating to land than pea-vines. They are friable, if I may be allowed to use the word, and incorporate immediately with the earth, and thus give, from this combination, a direct impulse to plants, without firing them, or obstructing the motion, or spreading of their roots. I am told that the crop of peas will, of itself, pay for the seed used, and the price of labor: so that the improvement of the soil is so much gained.

Writing of replenishing soils, puts me in mind of what a very successful planter, in Edgefield District, is in the habit of doing every year. He plants about one hundred acres of rye, oats, or wheat, in the proper season: gathers them in, and stacks them in the field: when he has laid by his crop, or whenever he can spare time, he gathers the grain in this manner:—He sows pieces of cotton bagging together—spreads it out as a carpet—places the rye, oats, or wheat on the same, and makes the little boys of the plantation ride horses upon it, until all, or nearly all, of the grain is detached from the stubble. He then gathers the seed, and stacks the stubble in every part of the field. Not only his own cattle but his neighbors', are now let in, which trample the soil as they munch and scatter the stubble in every direction. In February, the field is broken up with the plough, and cotton or corn planted. This planter always makes fine crops, and sells many hundred bushels of small grain every year. A better plan of obtaining the grain might be suggested.—The sheaf might be deprived of its grain by beating it on a rail, as is done in some parts of the West, and in Europe. By pursuing this course, this planter, who originally purchased a large tract of land, says, he has cleared very few acres, and has made abundant crops from his old fields, which were thrown out for their sterility. We should take the hint, Mr. Editor, and do likewise. Let us not be running to the West, when, by little industry, we may improve our soils. Every citizen is wanted at home! we shall have need of them shortly.

Yours,

P. S. I had almost forgot to mention how some of the planters of North Carolina replenish their corn-lands. Early in the fall they cover their fields with leaves or trash, and turn them under with the double horse-dragon or the crow-bar; oats is then planted, rather late in the season, with the rake or harrow, broad cast, for a pea-crop, which is abundant. Peas riot in vegetable matter partially decayed. This I have seen; for the most abundant crop I ever gathered, was when I manured my corn with leaves; the corn was "very sorry," while the peas were vigorous. The reason was this; the leaves did not decompose in time to benefit the corn, while later in the season the peas had the benefit of them. The ploughing of the leaves should be deep, and they should be effectually covered to plant oats or rye with any hope of success; but the peas may be planted at all events, and the same remark could be made of

wheat, since new ground is said by some to yield good wheat crops. When the land is thus replenished, the North Carolinians rarely, if ever plant corn the first year; the plant most generally fires if they do.

GEOLOGICAL SURVEY OF MARYLAND.

The geological survey of this state, now in progress, by Professor Ducatel, we are glad to learn is exciting the interest of the people and gaining favor even among those who first opposed it. Our attention having been called to the subject by a friend, we have examined the reports made by Professor Ducatel to the Legislature, and have sought information from others who are well advised, and it gives us great pleasure to state that the survey is progressing with as much rapidity as the work will admit, and with the happiest results.

Among the positive benefits which the citizens of Maryland have derived from the researches of the Geologist, may be mentioned, the better acquaintance that has been imparted to them of the physical geography of the state, including the general character of the soil in the several counties that have already been visited, its susceptibility to improvements, and the best means of effecting these improvements. They have been made aware of the presence of vast agricultural resources, of which they did not previously know the existence, or whenever known, did not fully appreciate, because of an imperfect knowledge of their true character and real value. The occurrence of immense deposits of shell marl has been indicated in numerous localities where it was not suspected; ample directions have been given for its extraction and its use, and wherever these have been attended to, in now already numerous places, the benefits derived from its application have reached the most sanguine anticipations. In those counties even where the employment of marl dates to many years antecedent to the geological survey, and where its value was in some measure known, a new incentive has been given to its further use, and a means of agricultural improvement which was formerly resorted to by only a few independent farmers, is now becoming, wherever circumstances will allow of it, a common resource to the, hitherto, most careless cultivator. By increasing the produce of the soil, the value of the lands has in proportion been enhanced to such an extent that the mere presence of a marl bed on a farm, unemployed, doubles the value of the property upon which it is situated. This is emphatically the case in Talbot and Queen Anne's counties on the Eastern Shore of Maryland, and is true, whether so acknowledged at present or not, in Caroline, Charles, St. Mary's and Calvert counties.

In those counties where no marl occurs a resource of paramount value has been pointed out in the great accumulation of oyster shells, made most probably on and around the sites of ancient Indian settlements. It has been shown in the report of the year 1835, that those might be made to afford an almost inexhaustible supply of lime, and thus a material hitherto considered worthless, and in some places an incumbrance, is shewn to possess considerable value. The experiments that have been made by some intelligent farmers

at the suggestion of the Geologist, have been crowned with the greatest success, and have established all that was predicted of the importance to the agricultural interest of the tide water districts of the state, of these extensive deposits. They have also been the means of creating a new industry in many places where they occur; being now extensively burned into lime in some portions of Kent county, and elsewhere, whence it is largely distributed through the surrounding country. The sum of value in this way imparted to a product of Maryland hitherto almost totally disregarded, and of which there are millions of bushels, independent of the use of the lime obtained from it, and considered only as an article of merchandise, it is obvious, would repay all the expenses of the survey so far incurred ten times over.

The discovery of deposits of *green-sand*, or "Jersey marl" on both the Eastern and Western Shores of the state, has been another fruit of the geological surveys. The occurrence of this mineral in Kent, Cecil, A. Arundel, Calvert, Prince George's and Charles counties, must be looked upon as an invaluable resource. In reference to it, one of the Geologists engaged in the survey of the state of New York, says: "The most valuable of these marls is a green sandy mineral, composed of silver, iron, and potash, which acts as a powerful manure; and it is hoped that this stratum will yet be found on Long Island; and if so, it would be more valuable than mines of gold."

Besides these investigations and discoveries that address themselves to the agricultural interest of the state, the geologist has had the good fortune to discover deposits of iron ore and clays not previously known, the contents of which can be made extensively available to the manufacturing industry of the country.

Such are some of the positive services that have been rendered by the survey; others of a negative character may be mentioned. Thus the mineral resources of many parts of the state have not yet been fully developed, and the people are anxious to commence their researches on the slightest indications, and many have been duped, in consequence of the interested motives of individuals. Companies have been formed and excavations made, in localities where a practical geologist would have said at a glance, there was no probability that the substance sought for could be found. Certain mineral substances occur, so constantly associated with other particular minerals, that on finding one, the others may be expected to occur associated with it.

Without a knowledge of those associations, and various other facts connected with geology, which require much practical knowledge, attempts at new discoveries, except by mere chance, must be fruitless. The hundreds of excavations in different parts of the country, made under the delusive hope of reaping a rich reward, attest the zeal for mineral exploration, but at the same time the want of that practical and theoretical knowledge, which are necessary for the successful prosecution of mining enterprises. In three or four instances already have operations commenced with these fallacious expectations, been stopped at the suggestion of the geologist, which would inevitably have proved the ruin of their projectors, and that moreover were an injury to the neighborhood, by holding out to them the false promise of resources at

hand, which could be obtained only elsewhere, though still within reach, and were in consequence neglected.

Again, a portion of the tide water districts of the State has been within a few years supplied with a material, sold at a reduced price as lime, and was eagerly bought up, in consequence of its low price. But an analysis of this substance has shown that it contains only one half of the ingredient which alone conferred upon it any value; so that in point of fact the Farmer was paying an advanced price for an article which he could obtain nearer home, much better and cheaper. By thus ascertaining the true value of this article, much disappointment has been saved to the Farmer, and many thousands of dollars prevented from leaving the state.

The geological surveys have extended, so far, only over the tide water districts, and the remaining portions of the State, being those where most of its mineral wealth lies, have, as yet, been but very partially developed. It was the principal object of those who projected the survey—and it seems to have been likewise the intention of the Legislature who ordered it—that it should be the means of developing all the advantages, and the whole riches of the state, for the benefit of every portion of her population. In this spirit, the officer charged with the undertaking has sought to collect information on every subject connected with the physical geography of the country.—Whilst pursuing his researches according to the true principles of scientific investigation, he has, very properly, not been satisfied with merely stating the result of his labors, but has pointed out the uses that may be made of them, as subservient to the various interests of the people of the State. The reports which he has annually submitted, do not relate solely to an announcement of the progress of the work, but the account is made to embrace considerations of practical utility, immediately or remotely applicable. Viewing the project as a comprehensive scheme of internal improvement, addressing itself to the interests of every county in the State, we are happy to know that he has devoted all his energies to its completion, and we venture to assert, that when the task is accomplished, the advantages accruing from it, in the very nature of the work, will become manifest to every one.—*Baltimore Chronicle.*

[From the N. Y. Evening Star.]

The Cultivation of Sugar Beets in Ohio.

When the maple forests bow to the axe of the woodman, as they must in the tide of emigration flooding the West, Ohio must look to the Beet if she wishes a domestic substitute for sugar, and cannot get return cargoes of the article cheap enough for the produce she ships to Louisiana. A Mr. Pugh, according to the Cincinnati Gazette, has already anticipated this culture on his farm, a few miles north of that city. He has raised this year sugar beets 30 inches in circumference, and weighing 22 pounds, from seed procured in France, and mangel wurtzel of nearly the same dimensions, also from French seed. Mr. Pugh thinks it as easy to raise 50 tons of these beets from an acre as 50 bushels of corn. They are capital for cattle and stock hogs, and young sucking calves prefer them to milk when properly pre-

pared with milk. Among the 56 head of his Durham breeds, those that had fed on beets could readily be distinguished by their fat and sleek appearance. The beets are infinitely better when boiled.

The apparatus and fixtures used by Mr. Pugh for boiling, or rather steaming food for 300, and 40 or 50 cows with other stock, cost about \$150, and consumes a quarter of a cord of wood per day.

Among the Durham cattle on the farm of Mr. Pugh was observed some very fine young males, and among them Lebanon, an animal of superior growth and figure.

Mr. P. has not attempted to make sugar from his beets, but if its manufacture is profitable anywhere from this article, it would certainly be so here, for no soil can produce a better growth. Two hands can prepare the ground, plant and cultivate five acres of beets in a season, and the product would doubtless yield many tons of saccharine matter.

AN EXPEDITIOUS MANNER OF PRODUCING TREES AND SHRUBS.

This consists in surrounding a branch or limb of a tree with earth, and keeping it sufficiently moist to receive the roots formed on this part of the branch, and girdling the branch by degrees during one season of its growth between this part and the body of the tree, immediately adjoining the part surrounded by the earth.

Suppose a cubical box of three inches square, composed of thin boards nailed together, and a horizontal branch passed through holes in the middle of two opposite sides, and the remainder of the box filled with vegetable mould, (say decayed leaves from the woods,) passed into it by an opening in the upper side. If the rain that falls upon the upper side of the box be insufficient to keep the earth within it sufficiently moist, more water may be added (by hand when required;) or a thin board with the edges higher than the middle, may be placed on the box to extend beyond the edges, so as to collect a sufficient quantity of rain water. A small part of the bark is cut through, and in the course of a few days another small portion, and thus continued during the season, until the branch is completely surrounded, and a small ring or circle of bark removed. At a suitable time for transplanting, the branch may be cut entirely off, and treated afterwards as young trees usually are when transplanted; the sides of the box surrounding the earth and roots are removed previously to transplanting. Dry gourds, with holes formed in them while green, answer in the place of boxes.

Peach and other trees, where a *hard strong bark* is desirable, may be produced in this manner to advantage; also *thorns for live fences*, where the value of the plants is in proportion to the number of thorns upon it; another advantage arises from the short space of time required to produce an orchard, or shade trees. The branches that would otherwise require to be cut away to preserve the proper form of the parent tree, might be selected to a considerable extent for this purpose. *Sugar Maple* and many other trees, are now in great demand, with which the above method is certainly worth a trial. P.

HINTS ON DIET.

"An ounce of prevention is better than a pound of cure."

A reasonable indulgence in the abundant supplies of nature, converted by art to the purposes of wholesome food, is one of the comforts added to the maintenance of life. It is an indiscriminate gratification of our tastes, regardless of the consequences that may ensue from it, that is alone blameable. But so great is our general apathy in these respects, that even on the occurrence of diseases, from which we are all more or less sufferers, we scarcely ever reflect on our diet, as the principal, if not the sole cause of them—we assign them to weather, to infection, to hereditary descent, to spontaneous breeding, as if a disease could originate without a cause—or to any frivolous imaginary source without suspecting or being willing to own, mismanagement of ourselves?

We derive the renewal of our blood and juices, which are constantly exhausting, from the substances we take as food. As our food, therefore, is proper or improper, too much or too little, so will our juices be good or bad, overcharged or deficient, and our state of health accordingly good or diseased.

By aliment or food, is to be understood whatever we eat or drink, including seasonings, such as salt, sugar, spices, vinegar, &c. every thing in short, which we receive into our stomachs. Our food therefore, consists not only of such particles as are proper for the nourishment and support of the human body, but likewise contains certain active principles, viz. oils and spirits, which have the properties of stimulating the solids, quickening the circulation and making the fluids thinner; thus rendering them more suited to undergo the necessary secretions of the body.

The art of preserving health and obtaining long life, consists in the use of a moderate quantity of such diet, as shall neither increase the salts and oils so as to produce disease, nor diminish them, so as to suffer the solids to become relaxed.

It is very difficult, almost impossible, to ascertain what are the predominant qualities either in our bodies or in the food we eat. In practice, therefore, we can have no other rule but observing by experience what it is that hurts or does us good, and what it is our stomachs can digest with facility, or the contrary.

The eating too little is hurtful, as well as eating too much. Neither excess, nor any thing else that passes the bounds of nature can be good to man.

By loading the stomach, fermentation is checked, and of course digestion impeded; for the natural juice of the stomach has not room to exert itself, and it therefore nauseates its contents, is troubled with eructations, the spirits are oppressed, obstructions ensue, and fever is the consequence. Besides, that when thus overfilled, the stomach presses on the diaphragm, prevents the proper play of the lungs, and occasions uneasiness in our breathing. Hence arise various ill-symptoms and depraved effects, enervating the strength, decaying the senses, hastening old age, and shortening life. Though these effects are not immediately perceived, yet they are certain effects of intemperance: for it has been generally observed in great eaters, that though from cus-

tom, a state of youth and a strong constitution, they have no present inconvenience, but have digested their food, suffered surfeit, and borne their immoderate diet well, if they have not been unexpectedly cut off, they have found the symptoms of old age come on early in life, attended with pains and innumerable disorders.

If we value our health, we must ever make it a rule not to eat to satiety or fullness, but desist while the stomach feels quite easy. Thus we shall be refreshed, light and cheerful; not dull, heavy or indisposed. Should we be tempted to eat too much at one time, we should eat the less at another. Thus, if our dinner has been larger than usual, let our supper be less, or rather quite omitted; for there is no man, however careful of his health, who does not occasionally transgress in this way.

MANAGEMENT OF HORSES.

FATTENING.

To fatten a horse in a short space of time has generally been considered a very great art, and attended with much difficulty. Some authors are of opinion, it is necessary for a horse to swallow a certain quantity of medicine to produce the desired effect; while others rely on an uncommon or peculiar kind of food; but experience has proved that both opinions are erroneous, and that the few simples which I shall here recommend, together with good rubbing and a particular manner of feeding, will accomplish the fattening of a horse that is not a garron or extremely poor, within three or four weeks. After your stable is prepared, (as directed in page 47,) provide a plenty of good sweet corn, hominy, oats, bran and fodder; also a sufficient quantity of straw to keep him with a comfortable and clean bed; then notice the condition of the animal, for the purpose of bleeding in the neck. Should he be very poor, take from him only one quart of blood; if in tolerable plight two quarts—repeating the bleeding at the expiration of every eight or ten days, until he is fat. Take of flaxseed one pint, boil it to a strong tea of one quart; take of powdered brimstone, one table spoonful; salt-petre, one tea spoonful; of bran one and an half gallons; mix them all together, scalding the bran with the tea, forming a mash; which may be given every eight days: not permitting the horse to drink cold water for eight or ten hours afterwards. Take of assafoetida (which can be procured from any apothecary's shop) half an ounce; wrap it in a clean linen rag, and nail it in the bottom of the manger where the animal is fed; at first the horse will eat unwillingly where it is placed, but in a few days he will grow remarkably fond of it.

When you commence kind treatment towards a horse that has been cruelly used, let it be with great caution, or you may produce a founder or some other injury; those serviceable animals being too often hard used and half starved. For three or four days, allowance a horse (you contemplate fattening) to two and an half gallons a day, six or eight bundles of fodder, or an equal quantity of hay; after which you may keep your rack constantly full of long food, and never permit the manger to be entirely empty; taking care to change the food every day, giving the largest proportion of bran, viz:—bran and hominy, bran and oats, bran and corn, bran alone, oats, corn,

hominy, &c. &c. The food moistened occasionally with strong sassafras tea, produces an admirable effect; it whets the appetite, enriches the blood, and opens the bowels. Whenever a horse is fed, all dust, sour food, &c. should be removed from his manger, which should be washed twice a week with vinegar and salt; this kind of attention will aid the appetite and keep the manger sweet and clean. If the season of the year you undertake to fatten in affords green food of any kind, a little, about twelve o'clock, would assist you much in accomplishing your object. In the bucket in which you water, throw a handful of salt, two or three times a week; it becomes very grateful to the taste, after a few days confinement, and will prevent his pawing and eating dirt. If the object is to fatten a horse as speedily as possible, giving to him unusual life and spirits, he should not be brought out of the stable, nor even led to water. But if flesh is to be placed upon a horse to render hard service, I would recommend moderate exercise once every three days, carefully avoiding fretting or alarming him; more injury may be done a horse by fretting him one day, than you can remove in a week by the kindest treatment. The hoofs should be cleaned out every morning and evening, stuffed with clay and salt, or fresh cow manure, to keep the feet cool and prevent a swelling in the legs. A plenty of good rubbing is absolutely necessary for the placing of flesh speedily on a horse; and a blanket as a covering, at any time except the summer months, will place on his coat of hair a beautiful gloss, and add much to his comfort and apparent value.—*Pocket Farrier.*

[From the Village Record.]

ON THE CULTIVATION OF SILK.

BY DR. JOHT T. SHARPLESS, OF PHILADELPHIA.

Mr. E. C. Genet of Albany, in a letter to me on the subject, considers the drill from the seed or cutting decidedly the best. They must be kept under constant irrigation, and if light, black, sandy mould, called *heath soil*, could be procured for a manure, the production of the best leaves would be almost inevitable. The slips should be about a foot and a half in length, and put down late in the fall after the ground has been deeply dug and manured.

The tree is sometimes allowed to grow to its full size of 15 or 20 feet. Most of the worms ever raised near this city, depended on such, for nourishment, and they appeared to thrive well. No doubt therefore can exist as to the quality of the food; but the object to be attained is to procure the largest quantity possible, from a given portion of ground. To institute, therefore, a comparison, is the best method to decide on each system. Mr. Genet says, "one twentieth of an acre, planted with bushes not more than three years old, will supply 100,000 worms, and will produce 30 pounds of silk; and if a whole acre be so planted, the product will be 600 pounds, equal to 2,000,000 of animals. Forty thousand worms will consume 1000 pounds of leaves, easily supplied by fifty grown, or two hundred small trees, of 2 or 3 years old, and will produce 12 pounds of drawn silk." Mr. Genet continues, "from my experience, mulberry trees, trimmed down every year near to the ground, will yield more than if

placed in order to grow to their full size. The most correct calculation is, that 50 trees of 25 or 30 years old will support 40,000 worms, and will yield but 8 or 10 pounds of silk; whilst 100 trees which occupy one acre of ground can produce but 20 pounds." Mr. Fitch says, "one acre of full grown trees, set a rod and a half apart, will produce 40 pounds of spun silk." The necessity of engrafting also becomes an interesting question. Count Dondola considers the wild or ungrafted tree as bearing the most nutritious food, but he has not tested the matter completely, as almost all the trees in his country are engrafted; the artificial branches are also much shorter lived than the natural.

The same writer says, the older a *natural* tree becomes, the more it improves—the leaves being smaller, and the worms eating it with more avidity. He proceeds, "a wild tree that will yield 30 lbs. of leaves, will afford a larger quantity of better silk, than a grafted tree that will bear 50 lbs. Fourteen and a half pounds of *wild* leaves, weighed when just gathered, without assorting, will produce a pound and a half of cocoons, whilst twenty pounds and a quarter of *engrafted* is required. Seven and a half pounds of cocoons, fed on the wild tree, will give 14 ounces avoirdupois of exceedingly fine silk, and the same quantity from the cultivated tree will give but 11 ounces. He does not speak particularly of trimming the bushes down in the shrubbery system, but it is presumable he means so by mentioning trees that afford but 30 pounds of leaves, and also remarks, that "21,000 lbs. of leaves, which will nett 1500 pounds of cocoons can be given by 732 trees, which can be raised on 2928 square feet of land, allowing four square feet for each."

From all that has been said, it would appear, that the bushes planted in rows, and kept to the height of 5 or 6 feet, grafted or unengrafted, are the best calculated to yield the largest quantity of the best silk.*

For further information on the mulberry, see *La Maison Rustique*; *Technical Repository*; *Millar's Gardner's Dictionary*; *Horticultural Transactions*; *London's Gardening*; *Manuel du Jardinier*, &c. &c.

To proceed with the *manufacture* of silk, after the thread has been reeled and dried, it is *throw-styled* or *twisted*—The object of this operation is, to more completely unite the different fibres of

* The *Silk Manual*, by Edward P. Roberts, published 1835, and for sale by Mr. Judah Dobson, Philadelphia, (a work I would refer all particular enquirers to, as containing *in extenso*, all the information necessary for even large growers) says on the authority of the Hamilton co. (Ohio) agricultural society, that 4 young ladies in Massachusetts, in 1833, fed enough worms from the product of 4 acres, to yield 429 lbs. of silk, besides attending to their domestic duties. Also, that Mr. Parmentier of New York, raised \$490 worth of silk from one acre of trees when full grown. There is also in the same work the estimates of 16 persons whose products from an acre vary from 18 lbs. to 1296 lbs. of silk, the difference depending upon the mode of cultivation, but the total of whose calculations give an average of \$1005 for each acre of land.

which it is composed; being flat, or nearly so, on the reel.

Many very complicated machines have been invented for this purpose; but as it is impossible in a mere essay to go into a detail of every manipulation on this or any other section of the subject, I shall confine myself to an outline. It is first wound from the skein on two bobbins or spools; then by an arrangement somewhat similar to the spool of a spinning wheel with a flyer, which is rapidly turned by machinery, it is again unwound into a skein receiving a twist to the right or left hand, and of greater or lesser tightness according to the fabric intended. It is sometimes left with this twist alone, to be manufactured, two threads thus twisted are placed together and turned in the contrary direction, producing a thread like a rope. This double or even treble thread is principally used as the warp of stuffs; whilst stocking silk is only yarn.

It is now boiled in soft water, with a quantity of fine soap, say 20 or 30 pounds, according to the lightness of the color intended for the dye, to the one hundred pounds of silk. The *Gum* is thus dissolved; the fibres are almost incorporated with each other; the thread becomes much larger, softer, and more pliable, whilst it loses nearly one fourth of its weight. The silk is then *beetled*, or washed and beaten, to remove all the soap, as that substance, however small the quantity, prevents the effect of the dyeing material. If the silk is to remain *White*, this operation is repeated three times, but with a less quantity of soap. It is then exposed to the fumes of sulphur, and subjected to other processes according to the purity of the color intended. As the use of the soap has in some instances injured the lustre of the thread, it has been proposed to use a weak solution of an alkali, as soda, but it does not dissolve the gum, which is necessary to enable the dye to take effect.

Some kinds of silk are dyed in the thread, and others in the stuff, but the same principle holds good both in the practice and in the theory. The most rational explanation of the application of dyes, is, that an actual chemical connexion takes place between the coloring matter and the fibre, by the intervention of a third substance, called a *mordant*. These are salts of various kinds, which are different according to the color.

The most common mordant is Alum, which is made into a strong solution, and the silk, when to be *alumed*, is dipped in it cold. Salts of tin are sometimes used.

As it would be useless to enter minutely into the manipulation of dyeing in this essay, I will merely give a general idea of the substances employed, and refer the more particular inquirer to Cooper on Dyeing; Macquer's *Art de la Teinture en Soie*; Berthollet's *Elements, de l'art de la Teinture*; Bancroft on colors; Bergman on the art of Dyeing, &c.

To produce the variety of red tints, Cochineal, Brazil wood, Madder, &c. are employed, but the first is most generally used, as giving the finest and most durable color. The different shades are produced by adding Galls, Copperas, &c. to the dyeing mixtures.

For *Blue*, Indigo is preferred, though Logwood and Prussian Blue are used. With Indigo no mordant is required, the *Blue Vat*, which is a mix-

ture of Indigo, Potash, Madder, Bran, &c. being sufficient.

For *Purple* or *Violet*, a red is added to the blue ground.

For *Green*, a yellow is added to the blue ground, or substances to produce both tints are used together, as Weld, Logwood, and for *Yellow* alone, Weld, Turmeric, Fustic, &c.

For *Black*, alum is never employed. The principle consists in adding a quantity of Galls or Sumac, to solutions of Iron and its compounds, as Copperas, which act on each other as in the production of ink. A black may be produced by boiling the silk in a decoction of walnut rinds, the passing it through a strong dye of Dogwood; and lastly, if a good black be desired, it is dipped into a mixture of Gall, Copperas, and Gum Arabic. The Gum is afterwards washed out, and the air perfects the color.

I before mentioned that boiling diminished the weight of silk by depriving it of its gum, but dyeing increased its weight in a great degree, in black, particularly when the galls are used, from four to six ounces are added to the pound of silk.

Sometimes it is required to discharge colors and introduce new ones. The principle consists in removing the mordant and the color will naturally escape. If this has been an alkali, as tartar or alum, a weak solution of an acid, as oil of vitriol will neutralize it, but if a solution of tin has been used, an alkali is required. It may then be bleached. If, however, the color cannot be removed, it may be changed into a darker or mixed tint, of which the original color is a constituent.

The silk is now prepared for the *loom*, which process is varied to suit the article. It is first warped, or the chain is laid parallel, and equally tight, and then placed in the loom, after which the mechanical operation is like that in cotton or wool. One thing is necessary to be known, that the dressing commonly given to the other substances always injures silk. After weaving, the pressing and other preparations must vary according to the fabric.

[From the Yankee Farmer.]

SHEARING SHEEP.

MR. COLE,—I send you the following as the result of ten years experience. I have usually sheared my lambs between the middle of July and the middle of August, but think the period between the 25th of July and the 5th of August preferable. The quantity of wool has varied from one to three pounds, the average for lambs being about two pounds each. The wool, a fine article in the manufacture of hats, has usually been worth from 23 to 50 cents. The advantages of shearing lambs are, it destroys the ticks, relieves the lambs of an uncomfortable fleece, and thus promotes their health and growth during the warmest part of the season. The quantity and quality of the wool are not diminished at the time of shearing in the following spring, and ever after the quantity is augmented and quality improved. I have not unfrequently taken four pounds each from Saxony yearlings, which had been shorn of a valuable fleece the latter part of the preceding July. As to disadvantages I know of none. The lambs winter well, are in better order, and the

flock more likely to be increased the ensuing spring.

JOHN MOULTON.

Potter, July 28, 1837.

Wheat Fly driven by smoke—Mr. Jeremiah Stinchfield of Danville informs us that he found the wheat fly very numerous on his wheat a little before sunset; the next day about noon he set fire to brush that was piled up by the side of the wheat, and the wind wafted the smoke in abundance all through the wheat. He afterwards examined the wheat frequently, and did not find any of the flies. He thinks that the smoke must have been the cause of their sudden disappearance. They had already deposited eggs, and the worm have injured his wheat considerably. Perhaps he did not smoke them early enough to save all.—*Yankee Farm.*

Remarkable Apple Tree.—We are informed that there is an apple tree on the farm of Mr. Elihu Smeal, of Charlemon, which blossomed at the usual time in the Spring, and the fruit from those blossoms is ripe; in July it blossomed again, and the blows remained on the tree about three weeks; there are apples from the second crop of blows, about the size of bullets, and the tree has now, (about Sept. 1,) blossomed a third time. The uncommon spectacle of ripe apples, young green apples, and blossoms may be seen on the same limb. We have no knowledge of a case of this kind so remarkable as this.—*Northamp. (Mass.) Gaz.*

Buckwheat.—A few days ago we saw some of the finest specimens of this species of grain that we have ever seen, known in this vicinity by the name of "Indian Buckwheat." It was raised on the farm of Mr. Alpheus Brown, of this town, from the branches of three stalks—which had been exhibited in the village, and handled over by several persons and more or less lost—a pint measure was filled with the remaining kernels.

Chenango Rep.

[From the Ohio Farmer.]

INTERESTING EXPERIMENT IN SILK RAISING.

The following communication throws new light on several subjects connected with the raising of silk, and the improvements yet to be made in the variety of the worm. Mr. Chew bids fair to be, not only one of the most successful, but the most useful persons engaged in this business.—We have spoken of his nursery of *Multicaulis* heretofore; and his cocoons which we have examined are superior to any of the kind we have ever seen. We hope to see in a year or so, an extensive business carried on under his direction and ownership. His communication spoken of we hope will not be neglected.

MR. EDITOR:—At your request I give the history of my success in feeding a second crop of Silk worms this season, and a few observations accompanying it. The crop is small, and was brought out by way of experiment in *crossing* varieties of the insect; and with a view to an exact observation of its habits. The varieties used were female millers of the "two crop white worm," from cocoons wound early in July; and male

millers of the ordinary six weeks variety, which were also from cocoons wound early in July, being of a sulphur color. My success with my first crop of both these varieties was discouraging; the worms of the "two crop" kind were sickly, and their cocoons were so small and thin, that like success a second time would have induced me to discard them from my cocoonery.

The second crop was attended by myself; they were cleaned daily, and were fed as often as eight or ten times a day, *exclusively* on the leaf of the *multicaulis*—they were kept in a comfortable well aired room, but no artificial heat was used to regulate the temperature. I observed that the eggs after being deposited did not change color as is usual, but that they remained the same as when laid, until they hatched, which was on the 20th of July, at 9 o'clock, A. M. The thermometer ranged 82° Fahrenheit, and had ranged the two preceding weeks from 75° to 85°. They first moulted within 60 hours after they were hatched, as appeared on careful examination by finding skins among the litter, although no signs of inactivity were observable until the second moulting—this moulting commenced on the afternoon of the 1st of August, about eighty hours after they were hatched. They were inactive this time 48 hours and then resumed eating with good appetites. The third moulting commenced on the 5th of August about 9 o'clock, A. M. and continued about 30 hours; the weather being quite cool—Aug. 8th and 9th were very cool, damp and rainy. The fourth moulting of about one half the lot, commenced on the 9th and continued about 12 hours, the other half moulted on the night of the 10th, and morning of the 11th. On the 13th and 14th the whole moulted for the fifth time. On the 17th a few commenced winding cocoons, it being the 19th day since they were hatched, others moulted daily, and the last moulted on the 20th, being 22 days since they were hatched. Before winding they measured in length as they laid 3½ inches; I lost from disease, casually, 10 per cent. of the lot hatched.

The cocoons were of usual size, being larger than the cocoons of the *mammoth* variety, made from eggs which I have procured from Doct. Stebbins of Northampton. Several when stript of their floss measured in circumference lengthways 5¼ inches, and breadthways 3½ inches. Their average weight was 35 grains or 164 20-35 to the pound Apothecaries weight; and assorted cocoons, being all single, weighed 53 grains, 108 36-56 to the pound—*Chrysalis* not stifled; they were of very light sulphur color.

The cocoons were formed in small paper cones, and remained in them one week before they were disturbed; they were then stripped of their floss, and put in a room quite dark. The moths made their appearance in from 14 to 20 days after winding, and each female produced an average of 613 eggs—65 producing 40,000; I continued several deposits which numbered over 600 respectively.

This experiment has confirmed some and removed other of my former impressions. I observed, first, that different varieties may be crossed with good results.

2nd. That two crops of silk may be made in a season, and probably three in a more southern latitude.*

3d. That the "two crop" variety moult five times and not three as has been stated.

4th. That the color of the cocoon is caused by fixed laws, and is not accidental.

5th. That worms hatched on the same day, are liable to moult at different times, the care and attention of all being equal; and that the advice frequently given, to throw away all except those which hatch upon any one day should not be followed, because perfect uniformity of hatching and winding cannot be attained.

6th. That in this latitude we are never liable to have weather too warm for worms when placed in the shade. The thermometer at one time being at 90° Far. while these worms were feeding, and they were then most active, lively and vigorous.

7th. That the more care and attention you give the worms the better will be the crop; that if fed with profusion worms will never eat too much; and that they should always have fresh food by them. These last observations appear to have been formed in *economy*. The same lot of worms well fed and attended, I think, will spin sooner, and produce a far better crop in three or four weeks, than it would in five or six weeks with twice the quantity of food if indifferently fed and attended; so that with proper attention there is a saving of food and labor; there is less risk of disease and casualties, not to mention the gain of fine and rational enjoyment which every *cultivator* should feel in making a superior crop.

I fear I have already wearied you with the length of my communication; although I have not yet mentioned the half of my observations. I cannot close however, without bearing my testimony to the value of the *multicaulis* as a superior article of food. At another time, I will, if agreeable to you, resume the subject, dealing more in generals than in this communication.

A. S. CHEW.

Columbus, Oct. 1837.

NOTE.—*If the "two crop" variety is used. I have made two unsuccessful attempts to bring out a second crop with the common varieties; viz: during the summers of 1836 and 37—the eggs were exposed to several degrees of heat, in one case as high as 100° Far. ineffectually.

C.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal, has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.

Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,

JOSEPH H. JONES, President.

RICHARD J. BOWIE, Sec'y.

Rockville, Montgomery county, Md. Oct. 20, 1837.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Casteel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

By 4

J. S. EASTMAN.

BAKFELL RAMS.

For sale 6 Bakewell Rams, one of which was imported. The prices are as follows, viz: the imported Ram \$150, No. 1. of the native bred, \$100—No. 2, \$75; No. 3, \$50; Nos. 4 and 5, 35 dollars each. The five latter rams are one year old, in fine condition, and beautiful specimens of their peculiar and much admired long-wooled breed. As a proof of their superior quality it may be well to state that two brothers of the latter five were sold at the great Whitaker sale recently held in Philadelphia, for \$100 each, and a third one since for the same money at private sale. Applications to be addressed in writing to

JOHN BARNEY,
Philadelphia.
3t.

Oct. 10.

CONTENTS OF THIS NUMBER.

Economy in feeding stock—mammoth oxen—on the culture of mangel wurtzel—methods of reviving worn out lands—geological survey of Maryland—cultivation of sugar beets in Ohio—expeditions manner of producing trees and shrubs—hints on diet—on fattening horses—on the cultivation of silk—on shearing sheep—wheat fly driven by smoke—remarkable apple tree—Indian buckwheat—interesting experiment in raising silk—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	
CATTLE, on the hoof,	100lbs	6 00	7 00
CORN, yellow	bushel	100	106
White,	"	100	102
COTTON, Virginia,	pound	11	
North Carolina,	"		
Upland,	"	10	12
Louisiana — Alabama	"		
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 50	11 50
Do. do. baker's,	"		
SuperHow. st. from stores	"	9 50	
" " wagon price,	"	8 50	
City Mills, super,	"	9 00	9 25
extra	"	9 50	9 62
Susquehanna,	"		
Rye,	"		
Kiln-dried Meal, in hhd.	hhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	8 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"		3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 00	
Slaughtered,	"		
HOPS—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	38
PEAS, red eye,	bushel.		
Black eye,	"	75	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	
RYE,	bushel.	100	105
Susquehanna,	"		none
TOBACCO, crop, common,	100 lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"		
ground leaf, ..	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.		
Red, best	"	2 00	2 05
Maryland inferior	"	1 80	1 20
WHISKEY, 1st pf. in bbls.	galton.	39	40
" in hhd.	"		37
" wagon price, ..	"	bbls	30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	
To Wheeling, ..	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do.	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,	"	104	104½
Middlings,	"	do	do
Assorted, country,	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"		
CIDER,	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 06	2 12
CHOP RYE,	"		1 75
EGGS,	dozen.	18	
FISH, Shad, No. 1, Susquehanna, ..	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,	"	4 75	
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	
Branch at Baltimore,	do	Farmers Bank of Virgi. 14a1½
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	¾a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton, ... 1		Bank of the Valley, ... 1
Salisbury, 2 per ct. dis.		Branch at Romney, ... do
Cumberland,	3	Do. Charlestown, ... do
Millington,	do	Do. Leesburg, ... 1½
DISTRICT.		Wheeling Banks, ... ¾a3½
Washington,		Ohio Banks, generally 6a7
Georgetown, } Banks, ½p.c.		New Jersey Banks gen. 5
Alexandria,		New York City, ... 3a4
PENNSYLVANIA.		New York State, ... 3a4
Philadelphia,	¾a	Massachusetts, ... 3a3½
Chambersburg,	1	Connecticut, ... 3a3½
Gettysburg,	do	New Hampshire, ... 3a3½
Pittsburg,	¾a	Maine, ... 3a3½
York,	1	Rhode Island, ... 3a3½
Other Pennsylvania Bks. 4		North Carolina, ... 5
Delaware [under \$5] 6		South Carolina, ... 8a10
Do. [over \$5] 2		Georgia, ... do
Michigan Banks,	10	New Orleans, ... 12
Canadian do. 10		

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & CO.,
Light, near Pratt-street, Balt.

Sept. 10.

3t.

ROBERT SINCLAIR'S NURSERY,
AT CLAREMONT, NEAR BALTIMORE.

This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION, from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

oc 17 5t

ROBERT SINCLAIR, senr.

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, and with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work a gain, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work, —a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdin & Co's. fronting Grant and Ellicott-sts. in the rear of Mr. Adam Kve's Grocery, Pratt-st. wharf

ITALIAN SPRING WHEAT.

The subscribers daily expect to receive about 100 barrels of Italian Spring Wheat, raised near Rome, N. Y. by J. Hathaway, esq. from imported seed.

This wheat was raised by Mr. H. particularly for seed grain, and the greatest care has been taken to prevent mixture from other sorts. The article is perfectly clean, and put up in tight barrels, which hold 3½ bushels each. Those desirous of being supplied with this desirable article will make early application.

The price will be \$5 per bushel, the cash to be paid on delivery of the grain. ROBT. SINCLAIR, JR. & CO.
Light, near Pratt street, Baltimore.

oc 24

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THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 30.

BALTIMORE, MD. NOVEMBER 21, 1837.

Vol. IV.

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the *N. W. corner of Baltimore and North streets, over the Patriot office*, at two **DOLLARS AND FIFTY CENTS per annum**, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: NOVEMBER 21, 1837.

REMOVAL.

The office of the "Farmer and Gardener" is removed to the North West corner of Baltimore and North-sts., over the Patriot office, opposite the Franklin Bank, and near the Post-office.

In another part of this day's impression will be found an interesting communication from Mr. Weller, of Brinkleyville, N. C., upon the subject of the *Silk and Vine Culture*. The compliment he pays to our enterprising townsman, Mr. Gideon B. Smith, is as well timed as justly deserved. We bespeak for Mr. W's. communication an attentive perusal from each of our patrons.

We insert in to-day's paper, a communication from an old and valued correspondent at St. Stephens, Alabama. His present signature is that of "Enquirer," and the subject upon which he treats is one of deep importance to every farmer. To say that we commend it to our readers' attention is but doing it half justice, as from his long practical experience, what he says upon the controverted point is entitled to every consideration. There is no part of the economy of the farm more entitled to attention than the proper management and disposition of corn-stalks. To our mind if cut at the proper season, and cured while the sap is still unexhausted, they will furnish as much substantial provender as any thing raised on the place. There can be no question that an acre of stalks harvested while the saccharine matter is still flowing, and protected from the weather, if cut into convenient lengths and steamed, is sufficient to keep an oxen or cow in good heart through the winter. Indeed, we know it to be a fact, that one of our largest and most scientific farmers last winter kept a herd of 60 or 70 Devons on corn stalks thus treated, with the addition of portions of Ruta-baga, and kept them sleek and well.

We were truly gratified a few days ago at a sight of the smallest cow we have ever seen; she is a deep mahogany red, and shews that she bears in her veins the blood of the North Devon. Her owner, David Stewart, Esq. of this city, was informed when he bought her, that her sire was a Durham, and dam one of the small breed of cows, [probably the Scotch.] many of which are in Pennsylvania. We, however, think that the sire was a *Devon*, for this diminutive specimen of cow flesh has all the points and color of one. Unlike most *very small* cows that we have seen, she has a *small* head, in close keeping with, and bearing a due proportion to, her dimensions. Indeed, we have never seen a more symmetrically made animal, each part vieing with the other in its beautiful adaptation to the other, and the whole forming as perfect a model of a cow as the eye need wish to alight upon. She is turned of three years of age, and has had one calf, which owing to its size had to be extracted from her. When extracted and placed alongside of its mother, we were assured by Mr. Stewart that it was the tallest of the two. When fresh, with her first calf, she gave between three and four gallons of milk per day, thus proving that small though she be, she is every inch a cow.

SUGAR BEET AND MANGLE WURTZEL.

One thousand and seventeen bushels of Sugar Beets and Mangle Wurtzel were topped and pulled by nine men in *three hours*. This is the production of a little over an acre of ground in Newton township, Gloucester county, New Jersey. Many of the beets weigh 12 lbs.—*U. S. Gaz.*

The advantages of the *beet culture* as provender for cattle, must obviously strike every agriculturist who may read the above paragraph; but for the sake of *accuracy* we could have desired that the exact quantity of ground occupied by these two varieties of beets had been named. Beets, whether of the Sugar Beet or Mangel Wurtzel variety, which will average 3 lbs. will yield, if planted at proper distances, *two feet* in the rows, and *one foot* apart, will yield per acre, 1089 bushels. That *three pounds* as the *average* is a moderate one, is made obvious by the fact that many of the above beets weighed 12 lbs. Had they all done so, and by proper manuring and after culture, they may be made to do so, they would have yielded to the acre 4396 bushels.

[For the Farmer and Gardener.]

CUTTING DOWN CORN.

MR. ROBERTS:—In your paper of the 19th Sept., I find a communication taken from the "Genessee Farmer," adverse to the claims of those who contend for the superior economy, and advantage of cutting down corn when at a certain stage of maturity and ripeness; in the form of assertions and questions. I confess my surprise on reading this piece, coming from a periodical of such high excellence and public usefulness. I had really thought for some time, that the subject was perfectly settled, in a country where agricultural economy is presumed to be brought to a science—in a country where the practical knowledge of a Judge Buel is constantly appearing before the public.

Some time ago I read in the columns of the "Farmer and Gardener," a trial of the value of the *corn stalks steamed*, that I concluded at the time, would bring conviction home to the breast of every man, that the *corn stalk* was a *superior* article of forage for the use of cattle, and worthy of the most perfect economy, in the *management* and *appropriation* of it. But, sir, if the practice of permitting the stalks of corn with all its accompaniments to be exposed in the field, until it is exhausted as much as possible, by the sun and winds, with the aid of the beating rains of the season, and then consumed by shivering animals, exposed to "all the peltings of the pitiless storm"—if this is a manure making—*improving* system—if this is agricultural *management* and *economy*, let us have it. But before the point is given up, let us who know that we reap singular advantages from the opposite course, make an honorable struggle—not for ourselves—for we are at rest, with the consciousness of the advantages we reap from the *sales of beef*, and the piles of *manure* we make—the product of our theory—but for the good of those who may not be convinced, and to whom, in the spirit of that *philanthropy* that we all ought to feel—the exercise of which amply repays its exercise. Let the subject be coolly and candidly examined. This I shall endeavour to do, not expecting that I shall do the subject entire justice, but equally with the hope, that some others will step forward and aid in the enquiry.—It is the interest of all equally, that the most profitable mode of remunerating labor, should be ascertained and followed. The man whose forehead is constantly kept moistened by hard, though honest and honorable labor, wants no chimeras. I am persuaded Mr. B—— does not.

The publication from which this communication was taken has long satisfied the country, of the enlightened character of the agricultural population of "Genessee."

To do justice to the subject with unnecessary detail, some general principles must be admitted, the result of every day facts. I shall only beg the permission of such, that Mr. B. and the com-

munity of intelligent farmers, will, I am assured, promptly admit.

It will be admitted, that the agricultural plan that admits of the *greatest accumulation of manure*, where the remuneration for labor bestowed in the sale of the marketable product of that labor is equal to the sale under any other circumstances, is the plan most judicious and profitable. But, sir, I must go farther, and say that any agricultural system, that does not admit and practice on this theory, is defective and unwise—and in the end will be found destructive to the farmers' best interests, for this amongst other undeniable reasons, that *his soil will wear out*, and become a caput mortuum. And, sir, I beg leave to go a little farther, and say, that the practice and experience of *China*—of *Europe*—has settled, that the first is the really productive and profitable system, and that just in the proportion in which it is judiciously pursued, is the rapidity with which it leads to wealth. It is now, and has been for some time decided by enlightened agriculturists, that "it is best to cut down every kind of grain before it is fully ripe." Is it possible that corn is an exception to this general rule? Does not the same reasons apply in favor of that grain, as in others? Is not the straw of small grain better? Why not the cornstalk? The writer before alluded to, declares that, he "is not for war"—nor am I. I take his declaration as a guarantee of his claim for candour, and a full disposition to yield, handsomely, to the stronger reason—and I feel assured that he will not view a cool investigation, even a "*blockade*"—much less a "*declaration of war*"—and equally, that every enquiry that tends to ascertain the correct course for the farmers' interest, is a valuable discussion, and especially if the results of *well tried experiment*.

ENQUIRER.

[For the Farmer and Gardener.]

MORE ABOUT THE GENUINE MORUS MULTICAULIS.

MR. ROBERTS—As the silk business is daily becoming a more prominent object in our country, and as any light thereon, diffused through our very useful agricultural prints, may be of consequence, I offer my mite of information for the "Farmer and Gardener," the paper of my patronage, and one conspicuous for discussions on this, as well as other important branches of Agriculture. Amidst a press of occupation, I was induced to the immediate offer of this for your paper from reading the most able essay of Mr. Smith recently appearing in its columns. I consider that gentleman, at least among the best authorities in the United States, and I may say, as to our county, in the world, in regard to the Silk culture. Indeed he may be considered, if the meed of merit be duly awarded him, the greatest pioneer to the introduction and complete success of this business in our country. And in order to the more speedy, as well as complete success in the silk culture, the admonitory voice of Mr. Smith as to the danger of impositions should be duly regarded—and of those in particular respecting the *Morus Multicaulis*; for I believe it may be fearlessly asserted that if at all problematical whether silk will ultimately become one of the great staples, instead of being, as now, one of the

greatest foreign drains of the money of our country, it must be grounded upon the supposed neglect of using almost exclusively the genuine *morus multicaulis*.

To confirm the general tenor of remarks about this plant in the essay alluded to is my principal design in this communication. I am the more anxious that all interested in the silk culture should pay particular attention to the able essay of Mr. Smith, because that impositions and consequent disappointments as to any agricultural enterprise operate exceedingly injurious to the cause in general, as well as all concerned.—*Croakers* against book farming and all agricultural improvements, take advantage thereof to advance *their downward* course. Again, a wrong start in any business often produces such discouragement and waste of capital, as to cause it to be given up in despair; however profitable that business may be in itself considered, or if rightfully begun. To apply this remark to one different from the point in hand, or to the grape culture. So far as I have experimented with wrong kinds or foreign vines, and servilely followed foreign modes of culture, I no longer wonder that some have made total failures in the vineyard business. Although by experience with right kinds of vines, (for our climate,) and my "*American system*" of culture, I am sanguine that a thousand dollars annually can be realized from an acre of vineyard. But to return to the subject of the *genuine* New Chinese Mulberry. Since this plant has been the means of giving a great impulse to the silk business in our country, and its culture has been a source of very handsome profit to those who had the good fortune or the faith in its excellencies to begin with it soon after its introduction among us, it is no wonder that selfish unprincipled individuals should attempt impositions upon the public in regard to it. The *better* the bank, the *more* counterfeits thereon, generally. But it is to be wondered at, that counterfeits of this plant, or those pretending to substitute a better in its stead, with no other ground of credence, than their own interested or selfish declaration should be accredited and patronized by intelligent men. For instance, that counterfeit *seed* and counterfeit *seedlings* of this plant should find *purchasers*!! It is true, honesty is the *best*, and dishonesty the *worst* eventual policy in every business. And as another item of confirmatory evidence of this principle, one very considerable nursery establishment in the North, as I have been credibly informed, has lost measurably public confidence, and is fast losing patronage, to its speedy ruin perhaps, with its present incumbents, on account of practising such impositions as before named, and those of a like nature; and that other establishments will probably ere long experience a like reaction. But such vicissitudes of a just providence upon the *guilty* perpetrators of impositions poorly console the *innocent*, who not only embarked capital, and zeal, and talent for enterprise upon counterfeit objects of comparatively no value, but by turning their attention to these, they were prevented from realizing the advantages of the genuine.

I find, Mr. Editor, I am already exceeding the limits I prescribed for myself when I commenced this communication. But as I have reason to believe it will be acceptable to you, and useful to publish, I shall take another opportunity to enlarge on the following facts and principles regarding the

Morus Multicaulis as evinced from experiments in its cultivation by myself and others in this region of our country. As far as I know, I was the first that tried the *Multicaulis* in North Carolina by procuring one rooted plant about a foot high from Baltimore, four years ago last April, which cost me a dollar besides conveyance. From this one I have since propagated several thousand rooted trees, not to name cuttings. I have sold to the amount of near a thousand dollars; and have a stock on hand unengaged, worth several hundred dollars, as my accompanying advertisement shows. My trees have *braved* our late very severe winters uninjured. I have propagated at all periods, when the plant was destitute of leaves with entire success—and by almost every mode; as that in particular with single buds, which last spring I drilled at three feet and one ley covering, lightly, and they grew with but trifling failures five and six feet, without any trouble of watering or removal; which last experiment I was induced to try through the information I got from Mr. Smith and my friend Mr. Robert Sinclair. Cuttings in good ground with me have grown 8 and 9 feet in a season without any trouble after planting, except that of keeping the ground stirred and clean. My first propagated trees are by measurement 16 and 18 feet high. A very intelligent gentleman in Brunswick county, Va. who by visiting, last summer, the silk and mulberry establishments in the Eastern States and elsewhere, was confirmed in his plan of entering upon the silk culture immediately, and who called upon me lately, mentioned that he saw no set of trees in his excursion to be compared with mine. And here I observe, that so far as this gentleman's experiment shows, the *genuine* new Chinese of Southern rearing are better for propagation South than those from the North, as those he procured from me last spring (about \$200 worth) did better than those he procured from New York State. And so impressed was he with this fact, and with the advantages of the *genuine* *Multicaulis* over the pretended seedlings, and other kinds of Mulberry which he had seen in his late tour, that he engaged of me for himself and friends nearly three hundred dollars' worth for the express purpose of propagation; intending to preserve all his of former rearing untouched by the knife for the purpose of making silk to some extent next season. I find no winter protection of the *Multicaulis* necessary in our latitude except that of cutting off a few outer buds of each limb after the first biting frost which causes all the leaves to fall. These cuttings immediately planted or put in a cellar, or buried in an open dry place, will be saved from injury on account of being tender and of unripened growth.

I will at present conclude, Mr. Editor, by observing that it is my purpose to unite in one establishment the vine and silk culture, as the press of business in either comes at different seasons. And I hope thereby not only to profitably employ, all the year, widows and children, and the superannuated, or the otherwise disqualified for hard labor, but to clear 500 dollars per acre from the silk, and 1000 dollars per acre from the vine culture. This may appear to some a Utopean scheme; but not to those who know the profits of the silk business, and those who have witnessed the surprising and never failing yields of my Halifax and Scuppernon vines, and appreciated

the quality of their wines. Yours with all due esteem,

SIDNEY WELLER.

Brinkleyville, Halifax co. N. C. Nov. 7, 1837.

AN IMPROVED MODE OF PLANTING COTTON IN THE UPPER COUNTRY.

BENTON COUNTY, Sept. 6th, 1837.

To the Editor of the Southern Agriculturist—

Sir—Accompanying this, are five dollars, the amount of my subscription to the Agriculturist for the present year,—to which I would add a few thoughts on what I think an improved mode of planting cotton for the upper country.—In this section there are three plans that are in general use, each of which I consider to be considerably objectionable.

The first, and that which I think is most frequently followed, is to run a single furrow, with a bull-tongue or gopher plough—in which the seed are drilled—then to cover it by running on each side a furrow, with an ordinary shovel plough; and at the expiration of a week or ten days from the time of planting, to strike off the top of the ridge by a board affixed to an ordinary plough-stock, so as to level the bed, and remove the first growth of young grass.

The second mode is to throw five furrows together, so as to form a tolerable ridge, in the centre of which, to run as small a furrow as possible, and drill the seed—then to run a small harrow on the drill, so as lightly to cover the seeds.

The third plan differs from the second only in covering with a board of 18 or 12 inches in length, affixed to a plough stock in a way similar to the one used for striking off the ridge in the first plan spoken of.

My objections to each of these modes, I proceed to state.

In the first place it will be considered, that on planting, it is desirable to place the seed in a situation in which the spring rains may drain from them; also, that they may receive as much as possible the warmth and benefit to be derived from the feeble rays of the sun, at the period of planting.

The first plan I deem objectionable, inasmuch as it buries the seed too deep in the earth, at the bottom of a furrow, in which the cold spring rains in a stiff soil, will run, and measurably settle—which, together with being covered with so great a depth of earth, at a cool season of the year, must destroy the germinating properties of the seed, and cause so frequently a bad stand of cotton—what does come up has often so little vigour, as to die almost immediately; or if it at all survives, to remain stunted considerably after.

The second and third plans are objectionable, inasmuch as the grass frequently gets the start of the cotton—whereas much labor might be saved by keeping the cotton clear of grass in the early stages of its growth.

The plan I propose, and which I have successfully adopted the last spring, is as follows: first, to run a small furrow, with a bull tongue or gopher; second, to run with a common shovel, a furrow on one side, that the soil from it will sift into the first furrow, so as to about fill it, then drill the seed im-

mediately where the first furrow was run, and cover pretty heavily by running a furrow on the other side.

By the seed being placed on the top of the gopher furrow, an excess of moisture is drained off, by running under the seed, and the elevation of the seed is sufficient for it to receive all the advantages to be derived from the rays of the sun at that season. But there are yet other advantages to be spoken of. Immediately after the cotton commences showing itself above the surface of the ridge, another furrow must be run on each side of the former, making in all five furrows, so as to cover completely whatever grass may be coming up on the edges of the two former; and then by a board twenty inches in length, affixed to a plough stock, and hollowed out two and a half inches on the lower edge, strike off the top of the ridge of the old furrow, which will level the bed—take off the crust of the earth, and demolish entirely whatever young grass may be appearing or about to appear on its surface, and in ten days the cotton will be thrivingly discernable from one end to the other of the row.

JOHN BALE.

HOPS.

Hops are an almost indispensable article in the domestic economy of every family, and some pains should accordingly be taken to have them of the first quality. Every farmer should raise his own; this is done with little trouble, nothing being necessary but to procure a few roots in the first instance, plant them in some place sufficiently rich where they can remain undisturbed, and every year furnish them with a few poles twelve or fifteen feet in height, on which they climb and produce their crop. There is some difference, we believe, in the bearing propensities and size of hops, and hence roots from known valuable kinds should be preferred for planting, though much of the difference, usually observable, may undoubtedly be traced to the quality and richness of soil in which they are grown.—Hops are useful in the preparation of yeast, are excellent for many medicinal purposes, and are a *sine qua non* in the production of good beer, we mean the real home brewed.

We are old fashioned enough to believe that if the sons of farmers would eschew mint-juleps, soda-water, and ice-water, and even the villainous compound called wine, in which many are accustomed to dabble; and betake themselves to the real malt beer, such as was manufactured by their grandmothers, and might now be by their mothers or sisters, were it not considered an infraction of dignity, in these days, to be considered as knowing any thing about such vulgar matters, there would be few young men *unable* to hold the plough, fewer hangers-on upon the learned professions, and that most of the demons of fashionable disease, including the many-horned one, dyspepsia, would be banished from that class of men who, some half a century ago, would have been ashamed to acknowledge they could be sick. Because we are the decided advocates of home brewed from malt and hops, do not imagine we approve the guzzling of strong beer, that decoction, unless some manufacturers of the article are much belied, of vile drugs and worse water.

There is a wide difference between the two, and this fact should in estimating results be constantly borne in mind.

In gathering their hops farmers pay too little attention to the time and manner of doing it. If gathered too green, the peculiar matter that gives flavor and efficacy to the hop is not present, not being fully developed, if allowed to stand too long, or until killed by frost, and discolored by the weather, this principle is mostly dissipated and lost. Mr. Fidler, of Albany, a gentleman who has been largely in the hop business, and is well acquainted with the subject, gives the following directions as to the best method and time of gathering them. 'In commencing picking, too much care cannot be taken in gathering those first that are ripe, and not in picking those that are the largest, as is often the case. The proper time of picking may be known by their change of color from deep green to a light yellow tinge. If they have seeds the hop should be gathered as soon as the seed turns brown; but the certain indication of picking time, to those who are familiar with this article, is when the *lupulin*, (or flower of the hop, as it is commonly called,) or small globules of the bright yellow rosin, are completely formed in the heads of the hop, at the bottom of the leaves, and the leaves are readily rubbed from the stem. The lupulin is the only valuable part, and if gathered too early before it becomes perfect turpentine, it soon dissipates and loses its fine aromatic flavor, and all its medicinal qualities. Hence gathering hops too soon is a total loss, and instead of imparting a palatable, pleasant aromatic flavor, and giving its fine tonic balsam to ale, they are unquestionably an injury, and ought not to be used; and if gathered too late, the lupulin drops out, and the hop is of little or no value.'

We have seen, in the hands of extensive hop growers, large quantities of this lupulin, or flavor of hops, which had accumulated in the boxes from the late picked hops, and which was used by themselves or distributed to others. Nothing can be finer in its effects; but it should be remembered that every particle so gained, is so much detracted from the actual value of the hops sold, and a proof that the gathering did not take place at the proper season and time. Farmers who cultivate their own should be careful in this respect, and see that they do not, by negligence or inattention, forfeit the benefit and the pleasure they might otherwise enjoy.—*Genesee Farmer*.

A Curiosity—Has been sent to our office by Colonel George Ferree, of Marietta, which we deem highly deserving of notice. It is an ear of corn complete and entire, and solid at the stem or root, but at about an inch above the root, branching out into seven distinct, separate, and perfectly formed ears of various sizes—a large, full and very handsome one in the centre, and surrounded by six smaller ones of different lengths and bulk, and equally well formed as the large one. It seems like a stout and hardy parent, with her six little ones clustering around her and craving nourishment and protection. Persons wishing to see this odd and pleasing affair, may have their desire gratified by calling at our office.—*Columbia Spy*.

[From the New York Farmer.]

To the Honorable Louis McLane, Secretary of State of the U. S. A., Washington City.

CONSULATE U. S. A., CAMPECHE,
February 1st, 1834.

Sir—The subscriber now presents a brief recapitulation of some facts and arguments, in favor of the *immediate* domestication of Tropical Plants in the United States. He wishes thus to show, not merely that the cultivation of tropical staples is *practicable* in our territory,—but also, that it is absolutely *necessary* for home consumption,—is positively *profitable* for the foreign market, and is highly *desirable*, in other respects, to promote the peace and prosperity of the Union.

The *practicability* of cultivating tropical productions in general, he has manifested with the facts, that the peculiar climate of the tropics extends beyond the astronomical boundary, several degrees north, into our peninsular territory; and that the best plants of the tropics are actually flourishing in the southern portion of that Peninsula, at Cape Florida. He has not only shown that, below 28°, Southern Florida enjoys the dry warm winter—the wet refreshing summer—the breeze by day from the sea, and by night from the land,—and the trade winds from the east, which are common to tropical countries in general; but he has also proved, by its narrow level surface stretching southwardly,—by the hot ocean river running northwardly, along its eastern shores,—and by the greater steadiness of the westwardly wind in those latitudes, that Tropical Florida is even *superior* to the elevated Islands of the West Indies, and to the broad Peninsula of Yucatan, in that *uniformity of temperature*, which is most favorable for vegetable growths, animal health and physical enjoyment. He has moreover not merely shown that in this superior climate of the tropics, are already growing various common vegetables of the tropics, but he has further announced the flourishing condition of the tenderest, and yet most productive plants of the torrid zone,—the Banana plant, and the Cocoa palm, which are universally pronounced to be the greatest blessings of Providence to man; and it may, hence, be considered experimentally demonstrated, that it is practicable to cultivate all tropical productions in the soil of the southern portion of the peninsula of East Florida.

The *necessity* of cultivating tropical productions for home consumption, is shown by the facts, that the *voluntary labor* of the many millions of the *colored races*, spread over the extremely great surface of the whole torrid zone, does *not* create scarcely any *cultivated* tropical productions for extra tropical consumption; that the *forced labor* of the few millions of the *black race*, on an extremely small surface of the West India Islands, *does* create nearly all the cultivated staples for exportation; and, that the forced labor of this black race, with its essential auxiliaries, the skill and capital of the white race, is becoming greatly reduced by the recent emancipating act of the British parliament.

According to Crawford, the friend and author of "Sugar without Slavery," the free labour of all the natives in the immense belt of the world, between 30 N. and 20 S. latitude, supplies an annual exportation of about 61,500 tons of sugar,—a

quantity which is not equal to the biennial crop of the slave labor of the few negroes in a little district of Louisiana!! Indeed, the greatly superior productiveness of the forced labor of the *colored* natives in hot climates, over the voluntary labor of those races in those climates, is doubted only by distant theorists on the false data obtained from the voluntary labor of the *white* natives of *cold* climates; and from the unphilosophical supposition of the equality or sameness of the different species of mankind. Yet, while this undeniable fact unequivocally shows the relative advantage of employing our existing slaves in the cultivation of tropical staples, it is not cited to prove either the positive propriety or the political expediency of the perpetual continuance of our negro slavery. On the contrary, it is expressly admitted that the *free labor of the white race* is so *much more productive* than either the *forced or free labor of the black race*, that on this account alone it will in time become desirable to transfer all the colored species to their original Africa, and to avail ourselves, even in tropical agriculture, of the voluntary labor of our white citizens alone.

As, then, the withdrawal of European skill, capital and force, from the negro labor of the neighboring portions of the torrid zone will diminish so greatly the agricultural production of tropical staples for exportation, it has become absolutely *necessary* to employ American skill, capital and force, on the negro labor of certain portions of our territory, to create an equivalent supply of cultivated tropical products for the home consumption of the United States.

The *profitableness* of cultivating tropical staples for the foreign market, may be shown with the facts, of the immense superiority of our people and of our institutions over those of the torrid zone. Our population is composed of the best varieties of the best species of the human genus—combining all the moral and intellectual improvement of the most civilized nations of Europe. Our government is the best in the world, because it is the government of a most moral, industrious, enlightened and enterprising people. On the contrary, the best colored species of the torrid zone are inferior to the worst varieties of the white species of the temperate zone, in the capacities, as well as in the desires, of improving their individual and social condition. Their varied *misgovernments* are the natural results of an indolent, ignorant, immoral, imbecile, and consequently poor population. Possessing very few personal desires, and very little political protection, scarcely any skill, and rarely any capital, however abundant may be the free laborers, and however cheap the free labor, their agricultural products must continue to be scanty and dear. Even in the nominal republics of tropical America, the agriculture of their Indian citizens very rarely affords an adequate supply for their limited domestic market, or even for their scanty personal consumption alone; and the future unproductiveness of the free negro subjects, of the British Islands, may be inferred from the actual desolation of St. Domingo. Our only rivals, then, in the cultivation of tropical productions for the foreign market, will be the colonies in which slave labor may remain combined with European skill and capital. Of these, the most formidable is the Island of Cuba, and yet her population and government are great-

ly inferior to those of the United States for prosperous agriculture. The Spanish varieties of the white species of mankind, is notorious for the numerous defects of the national character, institutions, and even religion of the individuals who compose it on both sides of the Atlantic Ocean. The disadvantages for profitable production common to all colonial establishments, hence increase, both in number and weight, in a Spanish colony. The innumerable taxations of most Catholic despotism, on the time and money of its subjects, rival, in abusive oppression, the numerous exactions of most Catholic superstition, on the purse and pursuits of its professors. But independently of every other consideration, the exemption of the American planter from the heavy duties paid by Colonial planters, on the extra-tropical production of the United States, consumed by their laborers, will enable the former to furnish tropical productions much cheaper for the American market. Even under the disadvantages of soil and climate, in our Atlantic Southern States, their actual cultivated productions of the tropics—their rice, tobacco and cotton, are profitably exported to every portion of the torrid zone itself, in spite of heavy duties and prohibitory laws; and it may be confidently predicted, that within five years, even the sugar of Louisiana will be smuggled into every port of Spanish America.

The *desirableness* in other respects, of cultivating tropical productions to promote the peace and prosperity of the Union, may be shown by a reference to the hostile policy of the governments of the torrid zone, to the present agricultural distress of the southern portion of our old Atlantic States; to the future probability of employing the free labor of our white citizens, in the agriculture of the warmest sections of the confederation; to additional considerations derived from the climate and position of South Florida; and to our moral obligations to improve the condition of our country.

The actual condition of the West India trade illustrates, not merely the disadvantages of foreign legislation to our merchants and mariners, but also its still greater injury to our farmers and other creators of domestic products for the tropical markets; as any diminution of consumption in foreign ports not only diminishes the price of the small excess created for exportation, but also of the immense amount produced for home consumption. The fact that the fluctuations in foreign demand cause the ruinous fluctuations in domestic value, is alone an argument for substituting a domestic market; and this substitution has, moreover, become an absolute necessary measure of self defence, against the hostile laws of the governments of the torrid zone. Nearly all our most important products, both of Agriculture and the Arts, are either loaded with excessive duties, or entirely prohibited in tropical ports. Even our neighboring Republics of Spanish America will not admit our northern wheat or southern rice, unless when compelled by famine; nor our greatest staples of tobacco and cotton, under any circumstances whatever. As tropical Mexico refuses to take on exchange our corn and our rice, our tobacco and our cotton, we are therefore virtually compelled to cultivate her vanilla and her jalap, and her cochineal cactus, and above all the *foliaceous fibres* of her Henequen Agaves. As tropical Cuba refuses reciprocity to our vessels, engaged in trans-

porting her sugar and coffee to our own ports, we must cultivate enough of both staples, to freight them more profitably in the coasting trade. But even under the most favorable legislation of tropical countries—a perfect and perpetual free trade—our landed and shipping interests may be both more profitably employed in domestic commerce, with the producers of tropical staples in our own territory. It has already been proved that even our slaves can create cultivated products more abundantly, and much cheaper than either the freemen or slaves of the torrid zone. It is also equally certain, the standard of comfortable subsistence being so much higher in the United States, that even our slaves consume a much greater quantity of extra-tropical products. Hence, a reciprocal augmentation of supply and demand will form a mutually more profitable trade between the colder and warmer divisions of the Union.

The agricultural distress of the sterile districts of the old States, (or northern and southern Atlantic States,) is principally caused by the cultivation of their common staples in the fertile districts of the new States, (or western and south-western States;) and the only agricultural remedy for this distress, will be found in the cultivation of such new staples as are equivalent to adding fertility to barren soils.

It is true that the farmers of the cold northern Atlantic States cannot well compensate themselves, for the superior productiveness of the western States in corn and wheat, by cultivating the vine and the mulberry; and that hence many are forced to become manufacturers and mariners; but it is very certain that the planters of the warm southern Atlantic States can more than compensate themselves, for the superior productiveness of the southwestern States in rice, tobacco and cotton, by cultivating the cassave jatropha, the cochineal cactus, and the henequen agave; and that the sugar palm on the poorest soils of Georgia, will be more profitable than the sugar cane on the richest loams of Louisiana. As we possess all the soils and climate, with the best people and institutions of the world, we have neither the necessity, nor the desire, nor the power of European agriculturalists to force the production of similar plants, in inferior climates and on inferior soils. On the contrary, an American cultivator must select the naturally most productive soil and climate for a given plant, or the naturally most productive plant for a given climate and soil. Hitherto our agriculturalists have preferred changing the place of location to varying the object of cultivation; and hence the fertile valley of the Ohio and Mississippi furnishes the cheapest and most abundant supply of our present staples, both for the domestic and foreign market.

Although the only formidable rivals of our western and southwestern cultivators, are themselves, they have already reached the extreme of over production for foreign consumption. Our southern planters, on their inferior soils, cannot hence any longer continue the profitable production of similar staples; and by augmenting the number and capital of southwestern planters, they only injure the latter without benefitting themselves.—They must, therefore, seek new staples of cultivation in the naturally most productive plants for their reputed barren soils. Rich and poor, fer-

tile and sterile, are only *relative epithets* in their application to agriculture; and hence the poorest soils for rice and cotton, may be the richest soils for cassave and henequen, and the most sterile soils for the tobacco plant and the sugar cane, may be the most fertile soils for the cochineal cactus and the sugar palm. "Palm sugar, not cane sugar, supplies the great consumption of the people of the East Indies, in the poorer and more mountainous countries." "As the palms are the produce of poor soils, and the labor is so small and the quantity of saccharine matter from them so great, that palm sugar is produced at about *half the cost* of cane sugar, of the same degree of purity,—that is, for something less than one penny per pound."

Our present tropical staples require a costly troublesome cultivation; demand a thick vegetable mould; and impoverish the richest soils in which they are planted.

But the future tropical staples of the south will need only a cheap, simple cultivation; will content themselves with bare sandy earth; and will actually enrich the poorest surfaces on which they spontaneously grow. And as our tropical rice, tobacco and cotton, on equal soils, are absolutely more productive than in their native climates, we may confidently anticipate that our southern States will enjoy an equal superiority in the culture of tropical cassave, cochineal, and henequen.

Reciprocal prosperity being thus restored, our southern brethren will cease to calculate the value of the Union.

The possibility of employing the voluntary labor of our white citizens in tropical agriculture, becomes especially important, from the consideration, that the United States embrace the only portion of the world in which the best laborers and the best institutions can be combined, in the cultivation of tropical productions.

The neighboring mis-called Republics contain four times as many Indian as white citizens; the latter are the least productive variety of the white race, and their governments are mere military anarchies. The neighboring distracted Colonies contain a majority of negroes, who, when freed, will expel the whites; and thenceforward, like their Haytien predecessors, they will be productive alone in the propagation of their species.—Tropical Asia and Africa cannot endure white laborers, nor free institutions; and Europe has not any tropical climate into which her white laborers can extend. But our Southern States contain already a respectable number of white laborers; and in Florida they will probably outnumber the negro laborers. The slave States, in their own time and manner, will eventually emancipate and transport all their colored laborers; and we shall then present to the world, the only possible example of tropical staples created by the most productive species of mankind, under the most favorable form of government on earth.

The additional consideration derived from the climate and position of South Florida, embrace the retention within our borders of those fellow citizens who annually leave it to locate themselves or to perish in foreign countries. Taxes and Cuba are constantly attracting our agriculturalists, who soon sorrow for the happy institutions of

their Fatherland, and who will return when the existence of a superior tropical climate in Southern Florida shall become generally known.

The south of France and of Italy have hitherto invited our invalids to perish in the great vicissitudes of their changeable climates, but hereafter they will seek for health in the unrivalled uniformity of temperature, and advantages of position, presented by the tropical extremity of our Peninsula.

Our moral obligations to improve the condition of our country are based on the unparalleled combination of advantages with which it has been favored by Providence. With the most favorable form of government, and the most productive varieties of the best species of the human race, we have all the soils and climates of the earth; and the consequent ability to cultivate most profitably all the most valuable varieties of the best species of the vegetable race. It hence becomes our duty to combine within our territory the creation of the greatest possible amount and variety of cultivated vegetable products for the physical enjoyment, not merely of our citizens, but also of the inhabitants of all extra-tropical countries, and probably even of the natives of the torrid zone itself. It has been demonstrated, that with a natural equality of soil in even our extra-tropical climates, our slave labor can create cultivated tropical products much more abundantly and cheaply than either the free or slave labor of the colored natives of inter-tropical countries; that many articles of tropical, culture instead of deteriorating, become more productive beyond their native zone; that we may ultimately apply the still more productive free labor of our white citizens to the cultivation of tropical staples; and that such laborers, under such institutions, cannot be devoted to tropical agriculture in any other part of the world. The great equatorial current of the ocean, after cutting off New-Holland from Asia, wearing its way round southern Africa, and being reflected by tropical America, brings to our shores, under the name of the Gulf Stream, the accumulated heat of the torrid zone to encourage our cultivation of the valuable vegetables of that unproducing belt of the globe. The white population on its borders will soon be forced to embark on its bosom for the United States. Once entirely abandoned by the skill and capital of the white species, the colored species will not furnish an adequate quantity of even *uncultivated* products for extra-topical consumption. Even logwood, mahogany, and other wild materials for the art, are diminishing every day. The peruvian bark, sarsaparilla, and other spontaneous medicines, are also vanishing, and noxious substitutes are exported to kill, instead of cure, our fellow citizens. If, therefore, we do not *speedily* naturalize *all* useful tropical plants in tropical Florida, they will soon disappear from the surface of the world.

I have the honor to be, Sir,

Your obedient servant,

HENRY PERINE.

To the Honorable Louis McLane, Secretary of State of the U. S. A., Washington City.

CONSULATE U. S. A., CAMPECHE, }
February 25th, 1835. }

Sir,—As an appendix to his communication of

the 1st inst., the subscriber avails himself of the only statistical data in his power to *demonstrate* the greatly superior productiveness of slave labor in the United States over slave labor in the West Indies.

British West India Colonies, 692,700 slaves, 427,392,000 sugar, and 71,763,500 coffee exported.

Spanish Island of Cuba, 286,846 slaves, 162,703,425 sugar, and 42,971,625 coffee exported.

Louisiana, 409,631 slaves, 70,000,000 sugar, and 72,000,000 cotton exported.

Now, admitting for a moment that the culture of cotton is merely equal to the culture of sugar and coffee, as 189,631 slaves produce 142 millions of sugar and cotton in Louisiana, in the same proportion, 692,700 should produce 897 millions of sugar and coffee in the British West India Islands; and in the same manner, 286,842 slaves should produce 371 millions of sugar and coffee in Cuba.

But the former do produce only 447 millions, and the latter only 225 millions, together 672 millions, instead of the 1268 millions which they should produce in proportion to Louisiana. But the truth is, that the relative value of labor of the production of cotton is at least fifty per cent. more than the value or labor of the production either of sugar or coffee; and hence the combined 979,642 slaves of British W. I. Islands and of Cuba, should yield 1590 millions; instead of 672 millions of sugar and coffee, every year, for exportation; or in other words, with an equal number of slaves, Louisiana would supply the consumption of the world!!

To obtain the details of the relative productiveness of a single negro, the following estimates are presented of a sugar plantation in Louisiana, and of a sugar plantation of Cuba, each assumed to yield annually 400,000 pounds of sugar.

The first are contained in the report of the Agricultural Committee of Baton Rouge to the Secretary of duties on imported sugar, and must hence be presumed to present the most unfavorable aspect of the cultivation of sugar in Louisiana. The second is taken from pages 108-9 of the Statistical History of Cuba, by Dr. Ramon de la Sagra, who presents the most favorable aspect of the cultivation in general of the staples of that Island. The first diminishes the average product of an acre in Louisiana, to 1000 pounds of sugar. The second exaggerates the average product of an acre in Cuba, to 2038 pounds of sugar,—although he had previously admitted that Humboldt was correct in limiting it to 1116 pounds the acre, or 1500 arrobas the caballeria.

The Louisiana plantation is stated 1200 acres: \$50,000; improvements, \$50,000; negroes 80, at \$600 each, \$48,000—total \$148,000.

The Cuba plantation is allowed only 30 caballerias, or 981 acres: \$54,000; improvements, \$65,490; negroes, 90, at \$400 each: \$36,000—total \$155,490.

Of the Louisiana plantation, *one-third*, or 400 acres, is cultivated—giving to each negro 5 acres, and 5000 pounds product in sugar.

Of the Cuba plantation, *one-sixth*, or 196 2-10 acres, is cultivated, giving to each negro 2 18-100 acres, and 4444 4-9 pounds product in sugar, i. e. 555 5-9 pounds *less*.

The proportion of the annual expenses of the

whole plantation is, for the negro in Louisiana, only \$105—while for the negro in Cuba, it ascends to \$151 48-100: i. e. \$46 48-100 *more*.

Hence, although the slave in Cuba may cost 50 per cent. *less*, and the ground he works may produce upwards of 100 per cent. *more*, the slave in Louisiana, both positively in sugar, and negatively in money, may gain for his master upwards of 100 per cent. *more*!

Without reference to the *price* of the sugar, or of the coffee, or of the cotton, it may, in the same way, be shown, that on *inferior soils* even our slave labor will create much greater quantities at much less expense!! But when we admit the soil and climate to be *equally* productive, how infinitely superior are the products of American *skill*, capital and *economy*, combined; and when we still further contemplate the *greater* productiveness of most articles of tropical culture, acclimated within our territory, we may safely anticipate that within twenty years, the southernmost sections of our Union will yield every tropical staple for the consumption of even the torrid zone itself.

I have the honor to be, very respectfully, sir, your humble and ob't serv't,

HENRY PERRINE.

FARM ACCOMMODATIONS FOR CATTLE.

Farmers differ so much in their opinions, situations, pursuits, resources, &c., that it is quite impossible to lay down any general plan with regard to the arrangement of accommodations for their stock.

In Pennsylvania, there is a laudable emulation among the farmers in building good barns, which accommodate their stock comfortably. In them they stow away hay and grain. When the wheat is threshed out, the straw is replaced, ready to litter the stable and feed the cattle. The provender is so convenient, that a boy can feed the stock of a considerable farm in half an hour, without going out of doors; and as all the hay and straw is in one place, consequently all the manure, without much attention, centres in one body, and is by that means preserved, as they have mostly a cow-yard with a fountain of water in it; in this the manure is kept, and the cattle run during the day to get water.

These barns are so constructed that the lower story holds all the stock, and frequently have granaries and carriage houses, with room for all the hay, wheat, &c., produced on one or two hundred acres. This building is much more convenient, costs less, takes less room, and the business is more easily conducted, than by building corn-house, stable, carriage-house, hay and straw sheds all separate, as some of our farmers do, requiring four times the roof, which is the most costly part of the building, some of which are frequently of a temporary character, and are often a disgrace to a handsome farm; whereas the barn is a convenient, substantial, cheap building, considering the accommodation it affords.

Robert Smith, Esq., of Baltimore, gives the following account of his dairy farm arrangements:

"The barn is constructed according to the best Pennsylvania models. The yard is to the south of it. On the east and west sides, are cow stables containing 110 well made stalls, and well ventilated by a sufficient number of windows and

double doors. In these stables, in summer as well as in winter, several ranges of cattle, duly littered and properly secured, each by a chain and halter. At the tails of each range of cows, there is a drain made of strong planks, so fixed as to receive all their dung and urine. These several drains have a sufficient declivity to carry all the fluid matter to their southern terminations, where they intersect similar drains, which convey all this liquid manure into a cistern fifty feet long.—This cistern is so placed and constructed as to receive not only the urine of the stables, but also the liquid matter of the farm yard. In it there is a pump, by means of which, its contents are pumped into a large hogshead, fixed on pair of wheels, drawn by oxen. To the end of this hogshead is attached a box pierced with holes, into which this liquid manure flows through a spigot and faucet, and is then sprinkled over the ground, as the oxen move forward.

"For the purpose of augmenting the quantity and improving the quality of the food of my stock of every kind, I have established a steam apparatus. It consists of a boiler and two wooden boxes, in which boxes is steamed the food. These boxes contain each eighty bushels. By this simple apparatus, every species of coarse vegetable offal, is converted into nourishing food, and all the ordinary provender is rendered more nutritious."

The common cattle stalls of our country, says Col. Pickering, are so ill contrived and so straightened in their dimensions, that the cattle are constrained to lie down in part of their own dung.—This dries and forms a thick coat on their hind quarters, from which they are not relieved till they shed their hair in the spring. They are thus rendered *uncomfortable*. To be uncomfortable is to suffer some degree of pain; and no one will suppose that animals in *pain* can *thrive*, or preserve their plight with the same food, equally with others perfectly at ease.

The practice of stacking hay and fodder in the fields, and feeding the cattle round stacks and fodder houses, cannot be too much condemned. The disadvantages of which are, a wasteful use of the provender; the dung lying as it dropped, without straw or any other vegetable substance brought to it, the manure is little in quantity, and that not lying in heaps, is reduced abundantly by *exhalation* and *rain*, without leaving anything to the soil.

In good husbandry, cattle are carefully housed, or otherwise confined to a foul yard in which are *shelters* against cold rains during the winter, and as far through the spring as food will last; by this means, there is a fair expenditure of provender, without waste, less exhaustion of the juices, because of the dung lying together in large heaps; and the dung being mixed with the straw and other vegetable substances brought to the beasts as litter, the whole is trod together and forms a large quantity of very valuable manure.

Litter is as essential to cattle, when let into yards, as when placed in stalls under cover, without which, yard manure is of small account; and unless it be in full proportion to the number of cattle in the yard, it is not thought highly of, but is a half done thing. Good farmers in England deem full littering of cattle, when in yards, of such importance, that after reaping with sickles and inning their wheat, they cut the stubble and

stack it for litter. Besides straw and stubble for litter, they apply to the same use fern, and such other vegetable substances as they can procure; and they buy straw from common farmers who are not in the practice of littering. In all countries, common farmers are indifferent to improvements; they work not beyond old habits; and it is prudent that they venture not on extensive new projects, without first making experiments. A full littering is three loads of 12 or 1300 pounds of straw to each grown beast. Corn stalks may be carried from the field in great quantities, in a skeleton frame cart, if not cut up and fed when fresh.

Many farmers feed in their yards in racks, and suppose that they gain every possible advantage from the practice, by the saving of the dung dropped, trampled, and watered by the cattle; and though this practice is certainly preferable to wasteful pasturing, or to feeding in the fields, yet it ought to be recollected that the manure will be much inferior to that made and preserved under cover.

Where cattle are yard fed, or stall fed in yards under sheds, it is of great consequence to defend beasts against the cold and damp north-east winds and the cold blasts of the north-west. Mr. E. Duffield, therefore, advised a friend who wished to have a complete farm-yard, to erect a range of buildings in a south-east direction, to have double stalls below, leaving the south west and south-east sides open to admit the sun in the winter, and give free entrance to the prevalent winds of summer.—[*Practical Farmer.*]

HINTS UPON GRAIN GROWING.

In conversation the other day with an old and experienced farmer, we obtained the following observations which we think worthy the attention of farmers who wish to cultivate the several grains.

Prevention of the Grain Worm.—It has been found, during the past summer, that wheat which grows upon high and airy land, suffered very little from the ravages of the grain worm, while those fields which were situated in low lands, or in sheltered places, were very much injured. From these facts it seems fair to draw the following conclusion: That all such places as are exposed to the winds should be put to wheat, and as there seems to be a particular period during which the fly operates, perhaps it would be well to sow your spring wheat somewhat later than common: sow about nine pecks to the acre.

Some think that the bald or beardless wheat is the best. There is a species coming into use in the upper counties of the state, called Miramichi wheat. We understand it has been cultivated largely by Mr. Ariel Tinkham, of Anson, who recommends it as being more productive than the old varieties usually cultivated among us.

Low dry lands to Baoley.—As the grain worm prefers low and sheltered spots, but does not injure Barley, it is recommended to put those lands, which are in such situations, and are warm and dry, to the Barley crop. Barley, in this state, should be sowed neither too early nor too late. It should not be sowed so early, that after it has come up, it will be checked in its growth by cold weather, but it should be put in at the season of the year when there is a probability, that after it has come

up, it will continue to grow in regular advance, and not be chilled and turn yellow by cold nights and late spring frosts. Sow about three bushels to the acre.

Poor spire grass land to Oats and peas.—Those who have land 'run out,' or become so poor as to bear but a thin quantity of spire grass, should break it up and sow it to peas and oats. Put in two and a half bushels to the acre—one half peas.

Peas for hogs.—Where a farmer has a convenient chance, it is a good plan to sow successive crops of peas for his swine to eat off while growing. They can be fattened, or put in good plight, faster and easier in this way than by any other means. Put in one and a half bushels of peas to an acre, mixing each bushel with about two quarts of oats to hold them up. Turn the hogs in, while the peas are in the milk or beginning to harden, and let them eat them off; and thus move them from field to field. They eat vines and all, and the land is thus well fitted for a wheat crop the next year.

Should use the Plough and Cultivator more.—Experience proves that we do not use the plough and cultivator enough, or, in other words, do not stir the ground so much as we ought. Ploughing sward land in the fall, and running the cultivator faithfully through in the spring, has been found to give a decided improvement and increase of crops, by those who have tried it. Instead of a cultivator, a light plough will do, taking care not to heave up the turf or sod.

Importation of Grain.—It is stated that more than seven millions of dollars have been paid by our country to European nations, during the last year, for wheat and other bread stuffs. Not a very flattering statement. This importation of bread stuffs from the old countries in one that is comparatively new, and capable of growing bread stuffs enough to supply almost the whole world, is not to our honor, and has hurt our credit abroad exceedingly. The Silk Culturist, in remarking on this subject, very truly observes, that 'the farmer who is dependant upon his neighbor for the ordinary agricultural products of the climate in which he lives, is not considered entitled to very large or very long credits, and it is precisely so with a country who are dependant on other nations for the staff of life. Not long since the Rothschilds were invited to make sundry investments in the United States, but declined; offering as a reason that *they did not think much of a country that did not raise its bread.*' This view of the case at once puts the thing in its proper light. The farmer who owns an equally good farm with his neighbor—warmed by the same sun, and moistened by the same dews—fertilized by the same showers—cherished and protected by the same laws, and yet neglects to cultivate it, and depends upon his neighbor for where-withal to eat, would be considered as a shiftless character. So with a state, which having the means of supplying itself with bread, given it by a bountiful Deity, but neglects to do it, will be looked upon, by even those who are glad to supply them, as not a little below par. We hope this reproach is passing away from us. The spirit of improvement is now abroad, and, if properly stimulated, it will elevate us to a height where we ought to have been long since. It

depends upon the farmers to do this. It is their business to do it—it is their duty to do it.

You cannot except the mechanic to leave his shop and his trade, and employ his whole time in raising the fruits of the earth. You cannot expect the professional man to leave his office and devote the live long year to agricultural pursuits. They may do it as an occasional relaxation—as a change from the monotony of their trade or profession; but their chief dependance is upon the farmers whose trade, whose occupation, and whose duty it is to raise enough for a supply. It is a high and responsible duty, and honorable and noble calling, and, where pursued with feelings in accordance with such views, uniformly yields a profit, and sheds a lustre upon the community which no splendor of any other kind can eclipse.—*Main Farmer.*

MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,

CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz,

11 inch Boxes,	\$30,	extra Knives for do. per sett	\$4,
14 " "	\$45,	" " "	5,
420 " "	\$75,	" " "	8,

CORN S ELLERS—hand machines \$20, horse do. 0. 1500 PLOUGHS, of various sizes and patterns, among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each.

CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each.

DRILL and SOWING MACHINES at 6,20 a \$100 each.

FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox YOKES and BOWS, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, Jr. & Co.,

Light, near Pratt-street, Balt.

CONTENTS OF THIS NUMBER.

Notice of a communication from Mr. Weller on the Silk and Vine culture—do. of a communication on the subject of cutting down corn—do. of a small cow—do. of the sugar beet and mangle wurtzle—on cutting down Corn—on the culture of silk and the vine—an improved mode of planting cotton—on the culture of hops—curious ear of corn—on the culture of Tropical plants in this country—farm accommodations for cattle—hints upon grain growing—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	6 00	7 00
CORN, yellow	bushel	100	106
White,	"	100	102
COTTON, Virginia,	pound	11	—
North Carolina,	"	—	—
Upland,	"	10	12
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 50	12 50
Do. do. baker's,	"	9 75	10 00
SuperHow. st. from stores	"	9 50	—
" " wagon price,	"	9 75	—
City Mills, super,	"	9 25	9 50
" extra	"	9 75	10 00
Susquehanna,	"	—	—
Rye,	"	—	—
Kiln-dried Meal, in hhd.	hhd.	24 50	25 00
do. in bbls.	bbl.	5 25	5 50
GRASS SEEDS, wholes. red Clover,	bushel.	7 50	8 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 00	—
Slaughtered,	"	—	—
HORS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	38
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	—	3 50
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	100	1 10
Susquehanna,	"	—	none
TOBACCO, crop, common,	100 lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	2 10	2 18
Red, best	"	2 00	2 10
Maryland inferior	"	1 80	1 90
WHISKEY, 1st pf. in bbls. }	gallon.	39	40
" in hhd. }	"	—	37
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do. }	"	25	30 18 20
Common & one fourth Meri. }	"	25	30 18 20
Pulled,	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured,	pound.	13	13½
Shoulders,	"	10½	10½
Middlings,	"	do	do
Assorted, country,	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old,	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 00	2 6
CHOP RYE,	"	—	1 75
EGGS,	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,	"	4 75	—
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virgi. 1½a½
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	¾a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton, ... 1		Bank of the Valley, ..
Salisbury, 2 per ct. dis.		Branch at Romney, ... do
Cumberland,	3	Do. Charlestown, do
Millington,	do	Do. Leesburg, ¼a
DISTRICT.		Wheeling Banks, ¾a
Washington, } Banks, ¾p.c.		Ohio Banks, generally 6a7
Georgetown, } Banks, ¾p.c.		New Jersey Banks gen. 5
Alexandria, } Banks, ¾p.c.		New York City, 2
PENNSYLVANIA.		New York State, 3a4
Philadelphia,	¾a	Massachusetts, 3a3½
Chambersburg,	1	Connecticut, 3a3½
Gettysburg	do	New Hampshire, 3a3½
Pittsburg,	¾a	Maine, 3a3½
York,	1	Rhode Island, 3a3½
Other Pennsylvania Bks. 4		North Carolina, 5
Delaware [under \$5] 6		South Carolina, 8a10
Do. [over \$5] 2		Georgia, do
Michigan Banks,	10	New Orleans, 12
Canadian do. 10		

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
a 22 EDWD. P. ROBERTS, Baltimore, Md.

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleyville, Halifax Co. N. Carolina.

SYDNEY WELLER.

Nov. 9, 1837—21

3t

ROBERT SINCLAIR'S NURSERY,
AT CLAREMONT, NEAR BALTIMORE.

This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, English Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

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ROBERT SINCLAIR, senr.

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, and with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work a gain, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoes. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work, —a thing worthy of farmers consideration, in these times.

J. T. DURDING,

at J. T. Durdin & Co's. fronting Grant and Ellicott-sts. in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 31. BALTIMORE, MD. NOVEMBER 28, 1837. Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: NOVEMBER 28, 1837

REMOVAL.

The office of the "Farmer and Gardener" is removed to the North West corner of Baltimore and North-sts., over the Patriot office, opposite the Franklin Bank, and near the Post-office.

We have read with feelings of pleasure and pride an *Address* delivered before the *Dorchester Agricultural Society* of Maryland, by Dr. *Joseph E. Muse*. To say that it is able, learned and eloquent, is but to do it half justice; and to those who are acquainted with the scientific attainments of this gentleman, we need not have made the remark; for they already are acquainted with his vast powers of intellect; nor need we say to the readers of the *American Farmer*, who have so often profited by the emanations from his pen, that he is as intelligent as zealous, in whatever appertains to the business of agriculture; but we will add, that we are gratified to find this faithful laborer, after the lapse of a quarter of a century as indomitable in his perseverance, and as full of zeal as he was in the very onset of his laudable career of usefulness.

In conclusion, we must be permitted to observe that, we are more than delighted to find by this recently formed Society, that however listless or indifferent in other parts of the country, agriculturists may be to their interests, those on the eastern shore of this state are determined to prove by their good works, that they know how to appreciate and forward the first of all human callings.

GOOD EXAMPLES.

The two anecdotes related below deserve to be generally circulated, as they contain examples which should be universally followed. Some few weeks since we saw a paragraph stating that Col. Wade Hampton, of South Carolina, to save the trouble of filing yearly receipts, had enclosed to the editors of the *New York Spirit of the*

Times, a draft for \$500, being the subscription for fifty years in advance. This latter instance of liberality, in the generous South Carolinian, must have warmed the bosoms of the editors who were the recipients of it, with a corresponding glow of gratitude. We say *gratitude*, because we always are impressed with that holy feeling when our subscribers comply simply with the terms of our paper, which is payment in advance, yearly; and while we are always ready to cherish in fond recollection all such evidences of proper appreciation of our labors, it is a source of deep regret to us that such instances are "few and far between." We have labored with unflinching zeal, and with a view of advancing the agricultural interest, decreased the price of our paper fifty per cent., on assuming its proprietorship; but we are mortified to have to make the confession, that many of our subscribers are not as thoughtful of our interests as a due regard to justice would require.

Astonishing Facts.—A gentleman of this city went into the store of a merchant tailor yesterday, and ordered a suit of clothes, and what is very remarkable, after inquiring the price of the garments—and before the tailor had time to measure him—he took out his wallet and paid for coat, pantaloons, and vest! An act of this kind deserves to be extensively promulgated.

Something almost equal to the above came under our own observation on Thursday. A good looking, portly gentleman from New Hampshire, who "lives a little off the road," and is not easily reached by a collector, called at our compiling room and paid forty dollars for five years subscription to the daily paper. It was a noble deed! "As a stranger we gave him a hearty welcome." *Boston Gazette.*

THE NAPIER PRESS.

We had often heard of the astonishing powers of the *Double Cylinder Napier* printing press; but as high an opinion as we had formed of their power, we confess they greatly exceeded our anticipations on seeing one in operation a few days since working off the *Baltimore Patriot*. In accuracy of work and velocity of motion, it runs far ahead of any other press we have ever seen at work, and we doubt not is superior in all its qualifications to any other press in the country. The usual number on the ordinary press, is, we believe 250 per hour. On the Single Napier, as well as on the *Adams' Printing Machine*, now generally

in use, from 700 to 800 impressions, per hour, are worked off; but the *Double Napier* throws off with perfect ease from 1800 to 2000 in the same time. This press in other cities is mostly propelled by steam power; that at the *Patriot* office, however, is moved by a large wheel, 22 feet in diameter, in which is placed a small pony, who moves the press with great celerity and apparent ease, and thus performs the service of two able bodied men. This power, which to the animal engaged is a kind of treadmill, is perfectly competent to turn several other presses, and could be applied to almost any other kind of machinery.—For agricultural purposes it could be made eminently useful, both in the saving of labor and economy of time and money. The *Napier* press is a London invention, created by the wants of the great newspaper issues in that great metropolis; but we learn is now manufactured by the Messrs. Hoe & Co. of the city of New York. We cannot close this brief account of this wonderful invention without remarking that the *press* as well as the *power* that gives it motion is, while at work, a curiosity, and would recommend all who have taste in such matters, to call and examine it for themselves, promising them that they will be highly gratified. Besides working off the large impression of the *Baltimore Patriot*, the wheel also propels Mr. Sands' *Adams' Machine*, in an adjoining room, on which the *Farmer and Gardener* and the *Temperance Herald*, editions of spelling books, and Almanacks are printed.

The *wheel* was put up under the direction of Mr. *Wm. Slicer*, a most competent and scientific mechanic, who is now engaged in putting up two others, the one upon Fell's Point and the other in the western part of our city.

We notice with deep regret that within the last few weeks death has taken from among us two of our cotemporaries, Judge *Emerson*, editor of the *Tennessee Farmer*, and *Thos. G. Fessenden*, editor of the *New England Farmer*. Both of these gentlemen were able and zealous laborers in the cause of agriculture, and contributed largely to the advancement of the science. The memory of each should be preserved in fond remembrance by the farming interests so long as virtue lasts, or gratitude is esteemed as a cardinal virtue.

[From the Franklin Farmer.]

CRITTENDEN, OR BADEN CORN.

Locust Hill, Franklin Co. Ky. Sept. 1, 1837.

To the publisher of the Franklin Farmer:

DEAR SIR:—In compliance with your request, I send you below a minute description of a small piece of corn of a rare and valuable variety; the seed of which was presented to me last spring by the Hon. John J. Crittenden, who brought them from Washington City; and which I propose shall be called the *Crittenden*, as a merited compliment to his public spirit in introducing it.

It is a soft white corn of the fourteen rowed variety, with a white cob of middle size in proportion to the grains, which are neither very deep nor very broad. It was originated by Mr. Baden of Maryland, (whose name it bears) who, by planting from the best top-ears of stalk which produced several ears, through a course of near twenty years, has produced this new variety; the chief peculiarity of which is in producing from two to eight ears upon a stalk.

Mr. Baden directs it to be planted in hills five feet apart each way, and two stalks in a hill; but in order to be sure that the corn should show its peculiarity, I planted it in moderately rich ground, without manure, in hills five feet apart each way, some with two, some with three and some few with four stalks in a hill. I received about a half pint in the grain, and on the 15th of May last I planted it in a situation remote from other corn. The only cultivation which it has received, is three ploughings, one hoeing, and one raking.—The ground measures ten by forty yards, about half of which is shaded in the evening by an adjacent woodland, which has obviously diminished the product.

The ground contains sixty-three hills, besides some missing hills. The hills contain six hundred and seventy-eight ears, besides some very small nubbins.

This will make an average of between nine and ten ears to a hill.

One hill with three stalks has twelve ears in it, six of which are on one stalk.

One hill of four stalks has seven ears on it.

One hill of three stalks has seven ears, which measure upon an average eight inches in length; which I think is not much over the average length of the whole 678 ears. Many of the stalks have four and five ears on them, and many of the hills have seven, eight, nine and ten ears to the hill.—The stalks, I think, will average ten feet in height; and the ears are generally about six feet from the ground.

As the manner in which the corn will be gathered, will preclude me from measuring the product, I have given the above facts, so that those who choose may calculate it. From this experiment I would infer that when planted in rich ground, at the proper season, and fully cultivated, the products cannot fall far short of double that of the common corn of the country.

To the farmers of the country, this new variety is certainly of great and surpassing value on account of its intrinsic merits, but incomparably more so, because it illustrates the fact that by pursuing the same mode of selecting our seed, we may bring the large yellow corn or large white yorkcheat corn, to the same high state of

perfection. And what a magnificent sight it would be to see a stalk of our large yellow corn bearing six ears, each measuring from 12 to 15 inches in length! and what a glorious immortality awaits that farmer of Kentucky who shall achieve it! Similar has been the fortune of Mr. Baden of Maryland.

The corn has been planted four months, and is now ripening. Five sixths of it are for distribution, and those who take an interest in it are invited to call, examine and receive it.

A hill of it will be exhibited at the Fair of the Franklin Agricultural Society, on the 2nd Wednesday in next month, together with ten or twelve other varieties.

With sentiments of esteem,

Your friend,

ROBERT W. SCOTT.

We duly appreciate the motives which operate in the mind of Mr. Scott, in his wish to impart the name of "*Crittenden*" to the "*Baden*" corn; but although we believe much credit is due to the Hon. Mr. Crittenden, for his agency in transmitting the seed to his gallant state, we are sure he has too much of that chivalry about him, which so pre-eminently distinguish Kentuckians, to desire for an instant to appropriate to himself the honor which belongs to another. Mr. Thomas N. Baden, for 22 years toiled with unflinching perseverance and unequalled sagacity, to bring this corn to its present state of perfection, and surely there is none but himself entitled to wear the wreath which he has thus nobly won. Swift, with great propriety of thought, and beauty of diction, observed, "that whoever could make *two ears of corn*, or two blades of grass, to grow upon a spot of ground, where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together"—and we would ask, what meed of praise is not due to Mr. Baden, who has not only made *two ears* of corn, but *seven*, to grow upon a spot of ground where only one grew before? We may have too much of that feeling known by the name of *enthusiasm* about us; but such is our view of the service rendered to his country by Mr. Baden, that we esteem him as a *benefactor*; for by his skillful improvement of his corn, he has more than quadrupled its products; thus adding, in that proportion, ability to the earth to furnish human sustenance, and add to the comforts and necessities of life.

Mr. Roberts—You will much oblige your readers in the South by giving us a list of the cost or price of transportation on the Rail Roads of the North—at the Coal Mine, &c.

A READER.

The above inquiry is from a distinguished citizen of Alabama, and we would be gratified if some of our editorial brethren of the North would be

so obliging as to furnish the desired information; in doing so they will probably promote the interests of the institutions in question.

[For the Farmer and Gardener.]

CORN FODDER.

Mr. Roberts:—I beg leave to throw out a few hints on the subject of saving corn fodder. The main object of cultivating corn is the grain—the fodder secondary. In some districts, such as the valley of the south branch of Potomac and other beef producing localities, grain and fodder are almost of equal importance. The time of cutting the fodder is to be regulated according to the object of the cultivator. Where grain is the main object, the grain should be allowed to become hard, before the tops and "blades" are taken off; where both are of equal value the grain should only be allowed to *enamel*—that is to form a slight scale of hard substance on the external part. I presume that in no section of country the fodder is most important—if there is such a place then to that section, it is important that the fodder should be saved as soon as the grain is fully grown—while it is in the milk, fit for "roasting ears."

If the "why and because" will be acceptable to your readers, here they are. Saccharine matter, (sugar) forms the basis of nutritive matter in all kinds of grain. It is the sugar also that makes corn fodder nutritious to cattle. The plant contains most sugar when it arrives at maturity—that is when the ear of corn is fully grown and its grain full of milk. Every moment after that period it loses some of its sugar, and the grains become more farinaceous. By the time the grains are fully ripe and hard, the plant has lost most of its sugar. Therefore as the perfection of the grain depends on its abundant supply of saccharine matter from the plant, to abridge that supply before the grain is perfect would be injurious to the grain, and hence the plants should be left undisturbed till that period. But it is not necessary to the perfection of the grain that the tops and blades should remain on the plant one moment longer than until the perfect formation of the farinaceous matter in the grain—as soon as possible after that they may and should be gathered. The plant elaborates a large quantity of saccharine matter more than is sufficient for the grain, and the excess is speedily dissipated by fermentation, after the grain is supplied. This excess may be saved in the fodder, if that be saved as above hinted. It will be perceived, that gathering the fodder while the corn is in the milk, will cause the crop of grain to be *light*, and that of fodder the best possible. This is the time for those to whom both are of equal value to save fodder; that the hardening of the grain is the time for those to whom the grain is the main, and fodder the secondary object, because they will then have a good crop of each; and that for those to whom fodder is no object at all, *any time* will do to gather it. These latter will have a full crop of corn, but no fodder of value.

I have said that the corn plant was at maturity when the corn was in the milk. This may seem erroneous; but a little reflection will prove it.—From that time forth it begins to decline, until it becomes a mere bundle of vegetable fibre, than

which a dry corn stalk is nothing else, and then the ears of corn are fully ripe—that is they have hung upon the drying stalks until they have become perfectly dry—they would have done just as well if hung upon *stakes*. As soon as the grain is hard it is fit to gather, and it is only left on the stalks as the most convenient mode of drying it for the crib. Now if the corn could be dried in any other way, it ought to be gathered as soon as possible, and the stalks saved for fodder, for which they would be valuable. But this cannot be done, and the stalks below the ears are necessarily devoted to the drying of the corn; but surely all the blades and tops should be saved.

The process of curing the fodder deserves attention. If exposed to sunshine and moisture, fermentation of the saccharine matter takes place and that is speedily dissipated in the form of vapour of *spirits*. Few people dream of the quantity of spirits that is set afloat in the atmosphere by every corn field in the fall. The fodder then should be cured as much as possible in the shade—give it plenty of air, but no sun nor moisture.

A FARMER.

[For the Farmer and Gardener.]

Mr. Roberts—The result of a number of trials to ascertain the comparative value of the refuse of CORN, say the *stalk, blade, shock and cob* together, and each singly, has compelled me to come to this conclusion, that there is no kind of ruffage, if the last is properly managed, say as any farmer can readily manage it, all things considered, that is more valuable, than the refuse of corn. I do know sir, from actual *trial*, that if the *shuck* is judiciously saved and *steamed*, half the quantity of corn will suffice for a horse, during the ploughing season, if it is properly given with the shuck, and the animal will sustain his labor better. I do also know from an equally fairly conducted *experiment*, that from the refuse of corn, say the *stalks* alone, properly saved, and cut, and well steamed—the *cobs* ground, the *meal* dissolved in water, and suffered to arrive at the vinous fermentation, the cut stuff well saturated with the liquid, that I can keep an ox, or cow, in a better state of flesh, and health, than the best hay can possibly do—but, sir, my cow or ox would eat her food in a warm house, if the weather was cold and wet, and not *shivering on a bleak hill side*. I have often actually sir, thought to myself, while riding past an *old cornstalk field*, in a bleak, and cold, and rainy storm, and seeing a fine milch cow, or a faithful, laboring ox, *drawn up* with icicles hanging to his body, that it was a most *conclusive proof* of the “*fall of Adam*,” and the doctrine of “*original sin*!”

If there is a fact in agricultural pursuit, perfectly settled, it is that *mixed food* is more *salutary*, and more *nutritious* in its operation, than *unmixed*, and cooked and mixed *superior* to either, and in a judicious mixture of articles of diet for animals, and the state in which it is given, consists the great secret of feeding animals to advantage. But to return—The price of *provisions* throughout the United States makes it evident, that it is the interest of the farmer to raise all the *beef* he can, for market,—*butter* and *cheese*—consequently, if he can employ any of the *ruffage* of his plantation in this way, it is his *interest*, not only to do it, but to do it with all the well-timed econ-

omy he is master of. In the South we find lately, that no part of the farmer's business is more profitable. This point being then settled, it becomes the primary interest of the farmer or planter, to raise all the stock he possibly can, because the possession of them is the great key to the accumulation of MANURE, and without which, he is in a great measure cut off, from the great resource for securing *heavy* and *profitable* crops—and a farther, and still more serious consequence follows—his *land*, his *capital*, his *all*, is annually *deteriorating*—*wearing out*, an object amongst the most *readily*, and *certainly* gained, by ignorance and folly. If the foregoing positions are correct, it is required merely to shew, how any kind of ruffage can be prepared to become nutritious, and the consequence follows, that it is the farmer's *interest*—his best interest to preserve it, and employ it in the rearing of stock. It may not be amiss here to state the actual value of the *manuring system*, as it will go to shew the sound policy of the whole proceeding. I am advocating, and although it is known, and would be recollected by many gentlemen, yet I wish to present it now by a brief statement, that it may be kept in view, throughout this investigation. The manuring of *one acre* of land *well*, and a *judicious* tending, so as to *save that manure*, is an *insurance* for *four good crops*. This I know from a fair and full trial, and that by a judicious *rotation*, at the end of the *fourth*, the land is in better heart than at the start. Without this *manuring*, every crop takes from the soil, and the latter deteriorating, leaves it at the end of the *fourth* almost *reduced*, so that a farther crop would not give a remuneration for making it. Now, sir, this last statement, which cannot be denied, is a wretched result, especially when it is recollected, that you have not only *no security* for a *full* or *heavy crop* at first, and every succeeding crop getting worse afterwards. Wretched is the *interest* on capital employed, no matter what it may be, if that *capital* is annually *deteriorating*. And fully as wretched is the agricultural practice, no matter what the crops are, if the *land* is *annually* wearing out. Place the thing in any altitude you please, the last dreary result not only carries with it a full confutation of the course, but equally forces the conclusion, that it must be radically erroneous.

ENQUIRER.

THE VINE.

The following article from one of the most scientific and successful cultivators of the vine in the west, will be read with profit by all those who feel an interest in this subject. We copy from the Cincinnati Republican.

THE VINTAGE.

The vintage this season has been later than usual, and the produce not abundant. Early in the season, the vines promised as well as I have ever seen them, but our season has been unusually cool and wet, and one half our grapes dropped in the early part of it. My crop will fall a few barrels short of one hundred, but the quality promises to be good. From my own experience I should discard the old doctrine, of allowing the grapes to shrivel before gathering, and coincide with recent French writers, who are of opinion that more is

lost in the aroma, than is gained in the saccharine principle. The more so, as the latter can always be supplied, and equally good with that obtained by the shrivelling of the fruit. Decidedly the finest grapes of the season, was a small vineyard of half an acre, the property of Mr. Jacob Resor.

This vineyard is on the Ohio river, four miles below the city, on the side of the hill, fully exposed to the south. This is the first year of their bearing, and the fourth season since planting.—His superior success this season is principally owing to their being young vines, and the ground dry. In dry, warm seasons, even a north exposure, will yield better. Heretofore we have planted no vine nearer than five feet from plant to plant, each way; his are planted three by four.—His grapes are the Catawba, Isabella, and Cape, (Schuylkill Muscadell.) The product of his half acre, was 25 barrels of wine, of 30 gallons per barrel, being 1320 gallons to the acre. In a recent work on the manufacture of wine, by Bussy, he states that Mr. Ruinart of Champagne, one of the largest proprietors of vines in that region, informed him, that the largest yield with them was eleven hundred gallons per acre; yet his vines were only eight or nine inches apart one way, six or seven inches the other.

The vine with us is less subject to injury than in any part of France or Germany, in which the best wines are made. They also complain of the wines becoming acid and ropy, neither of which evils have I met with in my wines. I have discontinued the cultivation of the Isabella entirely. I have made a wine from the Catawba, equal, and I believe superior to the best wines of the Rhine; but it ferments unequally, and I can never tell what the quality of my wine will be till spring. In one instance, last fall, I drew two barrels from the cask in which the grapes had been mashed, at the same time, and placed them side by side in the wine cellar. The one was a brandy barrel, the other a wine barrel; the former appeared to be in a state of fermentation the whole winter, was dry and not fine when racked last spring. The latter never fermented, was clear as amber, rich and sweet as the moment it was drawn from the cask. I bottled it, and it now has all the fixed air of champagne, but I have kept it in an ante-room attached to my ice house, or it would have burst the bottles. The same is true of the wines of Xerxes in Spain; till the fermentation is over, it is not known whether the wine will prove to be Sherry or Amontillado.

I am cultivating some new native varieties of grape, that are entirely free from the hard pulp generally prevalent in our native grapes, and for the table, quite equal to the foreign grape; I have not yet tested the quality of all of them for wine. I have one variety, resembling the Noiren of Burgundy, that promises to make a superior wine, both red and white, but its produce will be comparatively small. The most celebrated of the Madeira wine merchants was recently in our city, when a bottle of these wines (red and white) was set before him, together with two bottles of Madeira, very old, of my own importing, red [Tinto] and white. No intimation was given that either was domestic, but a gentleman at the table requested him to select the best; he decided in favor of the domestic. The domestic wines were new, and I cannot say that I coincided with him in opinion,

but I have known others, much better judges than myself, agree with him. The Cape always makes a fair wine, and should have brandy added in the spring; it is usual in all Madeira wines. It greatly improves by age, and resembles Madeira. At Vevay, this grape is always fermented in the skin, and a red wine made from it, which in my opinion is inferior to the white. The day is not far distant, when the banks of the Ohio, will rival the rivers of France and Germany, in the quantity and quality of their wines. But after an experience of twenty-five years, and a waste of time and money in the cultivation of a great variety of foreign grapes, I concluded that we must confine ourselves to American varieties, and the producing of new varieties from the seed.

N. LONGWORTH.

Cincinnati, Oct. 20th, 1837.

EFFECTS OF CULTIVATION—CURIOUS FACTS

The history of some of our commonest agricultural and horticultural products furnishes a useful lesson respecting the beneficial effects of careful cultivation. The husbandman may read, in the case of the potato particularly, not merely the effects produced by accident in the introduction of useful plants, but the vast improvements resulting from judicious culture.

The speech of Col. Knapp, in delivering the premiums awarded by the American Institute to individuals residing in Newark, embraced many curious facts which will probably be read with profit by intelligent farmers. We quote a few paragraphs.

"Every thing in this country (said he,) has been brought forward by protection. In this bleak clime but few of the sustaining fruits of the earth were here indigenous, or in a perfect state. Even the Indian corn, so often considered as native here, was with difficulty acclimated. It was brought from the south, and by degrees was coaxed to ripen in a northern latitude. The aborigines, who cultivated it, taught the pilgrims how to raise it; they plucked the earliest ears with the husk, and braded several of them together for the next year's seed, and their care was rewarded by an earlier and surer crop.

"The pumpkins brought from Spain was first planted in Rawley, Massachusetts, and it was several years before they came to a hard knotty shell, which marks the true Yankee pumpkins, such as are selected for the golden pies of their glorious thanksgiving festival.

"Our wheat was with difficulty acclimated.—That brought from the mother country had grown from spring to fall, but the season was not long enough here to ensure a crop; it was then sown in the fall, grew under the snows in winter, and catching the warmest growth of spring, yielded its increase by mid-summer.

"Asparagus, which is now the delight of all as an early vegetable, and for which several millions of dollars are paid our gardeners yearly, is of late culture in this country. At the time of the revolution, asparagus was only cultivated on the seaboard, this luxury had not then reached the farmer of the interior.

"The history of the potato is a singular one. Rees' Encyclopedia states that the potato was brought from Virginia, by Sir Walter Raleigh, to

Ireland. The writer should have said South America, in the latter part of the sixteenth century. He had no idea of its ever being used as an esculent, at that time. It was pointed out to him as a beautiful flower, and its hard bulby root was said, by the natives, to possess medicinal qualities. He took it to Ireland where he had estates presented to him by Queen Elizabeth, and planted it in his garden. The flower did not improve by cultivation, but the root grew larger and softer. The potato, in its native bed, was a coarse ground nut. The thought struck the philosopher to try the potato as an edible, and boiling and roasting it, found it by either process excellent. He then gave some of the plants to the peasantry, and they soon became, in a measure, a substitute for bread, when the harvest was scanty.

"The potato was successfully cultivated in Ireland before it was thought of in England; it grew into favor by slow degrees, and was so little known when our pilgrim fathers came to this country, that it was not thought of for a crop in the New World. It would have been an excellent thing for them if they had been acquainted with the value of the potato. It was not until 1719 that the Irish potato reached this country. A colony of Presbyterian Irish, who settled in Londonderry, in New Hampshire, brought the root with them. This people found their favorite vegetable flourished well in new grounds. By degrees their neighbors came into the habit of raising potatoes; but many years elapsed before the cultivation of them was general among the yeomanry of the country. Long after they were cultivated in New England, they were held in contempt, and the master mechanic often had to stipulate with his apprentice that he should not be obliged to eat potatoes. An aged mechanic once informed me that he raised nine bushels, having at that time (1746) a dozen apprentices, but did not venture to offer them a boiled potato with the meat, but left them in the cellar for the apprentices to get and roast as they pleased; he soon found that he should not have enough for seed, and locked up what was left. The next year he raised the enormous quantity of thirty-six bushels; the neighbors stared—but the boys devoured them during the following winter.

"About this time, some of the gentry brought this vegetable on their tables, and the prejudice against them vanished. Thus, by degrees, a taste for this food was formed, never to be extinguished. The cultivation of the potato is now well understood—a crop ameliorates instead of impoverishing the soil, and the culture can be increased to any extent. Thus, by the curiosity of our lover of nature, and his experiments, has an humble weed been brought from the mountains of South America, and spread over Europe and North America, until it is emphatically called 'the bread of nations.' Still the country from which it was taken, has been too ignorant or superstitious to attempt its cultivation, until within a few years. Now the lights of science are chasing away the long deep shadows of the Andes.

"Rice was brought from India in 1722, and cultivated by way of experiment in South Carolina. It succeeded well, and was, for many years, the staple article of the State. It seems strange, but it is not more strange than true, that a vegetable should have a moral and religious influence

over the minds of men. Brahma could never have enforced his code of religious rites, with an hundred incarnations, if India had not abounded in the rice plant. His followers would have become carnivorous, notwithstanding all the ray of his glory and the awful exhibition of his might, if he had not driven the animals away, and secured the vegetable kingdom for his worshippers.—Man is, in spite of his philosophy, a creature of the earth—and, in a common measure, like the chameleon, takes the hues of his character from his and his food.

"The cotton plant was at first cultivated as a flower in our gardens, and a beautiful flower it is. This plant alone has made a revolution in the finances of the world. Look at the growth and consumption of it in the United States, and the immense manufacture of it in England, where it cannot be grown, and you will find my assertion true in its most extended sense.

"Until our purchase of Louisiana, this country was indebted to the East and West Indies for sugar. In the country—the thirteen United States—sugar and molasses were made in small quantities, from corn-stalks, sweet apples, pumpkins, and maple sugar trees; but all put together, furnished but a small part of the sugar demanded by the great mass of people. Our people are fond of saccharine or sweetening, to use our peculiar term for it.

"The corn-stalk, the pumpkin, and the sweet apple are given up for sugar or molasses—and the maple tree is falling before the axe, and we must rely on the sugar cane alone, unless we can substitute, as in France, the sugar beet. The culture of the sugar beet has been commenced with us, and probably will be successful."

Genesee Farmer.

[From the Southern Agriculturist.]

IRISH POTATOES.

Mr. Editor—There is no root crop more valuable in some parts of the world, than Irish Potatoes; and could we learn how to preserve them in large quantities in the lower and middle country, they would constitute a favorite crop. They are not only a delightful table meal, but they can be applied to various uses. For instance, the flour made from them always sells higher than wheat in Europe, to confectionaries and bakers, who prepare the finer sorts of bread. Large manufactories are established nigh Paris, which manufacture some years 40,000 tons of potatoes into flour. Large quantities of starch are made from them—potash may be extracted from their leaves and stalks—cattle relish their leaves—and the roots afford the richest food when boiled, for horses, hogs and cows. This is not all; the refuse of them, taken from the manufactories of flour, is used to clean woollens, and make wine and ardent spirits; and let our dyspeptics note it well, when we say, they are recommended as an admirable diet for those affected with acid stomach and indigestion. What seems to me, however, of great consideration, is this—they may be planted in January, and the same land in corn, in time for a crop. Again, they yield more in new ground than the best unmanured land. In some parts of this State, new ground will produce no other crop except peas—corn is usually planted with the peas, and worked to prepare the ground

for a next year's crop of cotton, and the fodder it gives. The reason is, because the soil is too full of fibres and roots, the which, Irish Potatoes riot in. They, in this way, have more air than in old ground. I have tried it, Mr. Editor—the yield from new ground is always fine; and you need not work them more than twice; because, the grass in new ground, such as I describe, never pushes the planter for the first year. After the potatoes are gathered, you may then plant corn or peas, and thus gaining something more, prepare the soil for next year's cotton. Some of your correspondents would do me, and I believe others, a lasting service, to tell us how they may be preserved. I did hear that in Fairfield the farmers knew the art; and if so, I hope they will tell us—for they are indeed valuable, being the FIRST MATURED CROP WE CAN FEED OUR PEOPLE WITH. Half allowance of corn and potatoes are preferred by negroes, particularly, when they have bacon to boil with them. Even frosted potatoes may be applied as food for cattle, by thawing them in cold water, or being thawed, pared and boiled with a little salt.

The diseases of the Irish Potato in England, are chiefly the scab, the worm, and the curl, but I have not as yet discovered the appearance of either. Our potatoes are always thin skinned, too much so, and too watery. This watery principle is the cause of their rotting; and any plan to rectify this, before they are put up, would doubtless preserve them. The foreign and up-country potato are rough and dry and mealy; and towards the mountains can be preserved. This only convinces me, that if they were dried by some process before being put up, or rendered less watery by the artificial properties of the soil, they could be kept sound the whole year.

I have never succeeded. One of my neighbors tells me, that his father has preserved them, by digging a cellar under the house, and covering them with straw: however, as I have before me the methods by which they are preserved abroad, I will state some of them for the information of all concerned. I shall test these methods next year if I live. This is the fixed rule—whatever mode of preserving them is adopted, it is *essential* that the *tubers* be perfectly dry, otherwise they are certain of rotting; and a few rotten potatoes will contaminate the whole mass. They are put up in houses, cellars, pits, pies and camps. The general mode is, during dry weather, to put them into dry houses and cover them with dry straw.—The most successful plans, on whatever place they may be piled, require, that they should be *perfectly dry before put up—the place where, not damp*, and the covering straw. The methods which strike me as being best adapted to our climate, are 1st. to place them in thin layers on a platform, suspended in an ice cellar—2d. to scoop out the eyes with a very small scoop, and keep the roots buried in earth—3d. to destroy the vital principle by kiln-drying, steaming or scalding—4th. to bury them so deep in dry soil, that no temperature will reach them; and consequently being without air, they will remain upwards of a year without vegetating. These methods are thrown out for the benefit of your readers, with the hope, that some of them will turn their attention to the subject. The value of this root can be well estimated, when I say, that it is the first

crop out of which we can feed our negroes. We can commence to dig potatoes as early as May, and what is more, in so doing prepare our new ground for the next year's cultivation.

Before I conclude, let me inform you, Sir, of the best method of boiling potatoes, a piece of information not below the notice of a prince!

Set them on the fire in *cold water*; when boiled pour off the water completely, add a little salt, and dry them well on the fire. Another method:—choose your potatoes of equal size, and put them into a saucepan or pot without a lid, with no more water than is sufficient to cover them;—more would only spoil them, as the potatoes themselves, on being boiled, yield a considerable portion of water. By being boiled in a vessel without a lid, they do not crack, and all waste is prevented. After the water is come nearly to boil, pour it off, and replace the hot by cold water, into which throw a good portion of salt. The cold water sends the heat from the surface to the heart of the potato, and makes it mealy.

RUSTIC.

[From the Genesee Farmer.]

HINTS ON MAKING PORK, DERIVED FROM EXPERIENCE.

MR. TUCKER—I have heard some farmers say, only give them hogs and corn, and they could make pork. This is true, perhaps; but two individuals with hogs and corn of the same quality and goodness, one will make the fattening of pork a profitable business, while with the other it will be a losing concern. This is owing to their different management; and as all farmers' love to have some profit for their labor, I have arranged a few hints for the farmer, which you can dispose of as you please.

In the first place be careful to *select a good breed of hogs for your farm*. There is more difference in breeds of swine than most farmers seem to imagine, or I am very certain the long nosed, long shanked, forever restless animals that we so frequently see, would by common consent be banished from our farms and our pens. It is not saying too much, that one third of the feed required for a given quantity of pork is saved when fed to the China or Berkshire swine, or a cross of these breeds, rather than the squalling skeletons that disgrace the very name of porker.

Do not delay fattening your pork till winter.—All animals take on fat much more readily in a proper temperature; and with the hogs, this should be warm rather than otherwise. The greatest care will not make a hog as comfortable in January as in October, and the fattening will be in the same proportion.

Let your hogs be kept as quiet as possible.—Some farmers adopt a mode of feeding, by which what is gained in eating, is mostly lost in travelling. Their peas or corn are fed to them from the field, some half or three quarters of a mile from the house; and the trough and pen to which they come for the wash of the kitchen or the refuse of the dairy being at the latter place, this distance must be travelled over some four or six times a day by the animal to get his meals. This course may make healthy hogs, but it is not the best way to make fat ones.

Do not fear that cleanliness will injure your hogs.—To be kept in good health while fattening, hogs should be permitted to come to the ground, or a substitute provided; but the idea that to make a hog fatten he must be permitted daily to case over his carcase in mud is absurd. Give him in his pen daily a handful of weeds or vegetables with their roots, or when these cannot be had, a supply of fine charcoal with a little flour of sulphur once a week, and you need not fear keeping his exterior too clean and sleek.

Never feed a hog unground or uncooked food. Farmers diminish their profits more perhaps by a neglect of this rule, than any other. Grains fed to animals whole, is much of it lost to the purpose of nutrition, as the process of mastication renders but a small part of it sufficiently fine for the juice of the stomach to act upon advantageously. The more effectually hard grain can be pulverised the better, and when divided in this way as much as possible, cooking or boiling should be added to render the process as perfect as possible. Allow me to ask the farmer, who sneers at the idea of making his corn into pudding for his hogs, what his family would say were he to order a quart of meal and a little water to be dealt out to them, instead of allowing its conversion into suitable and nutritious food by boiling. Our effort in fattening animals should be, to relieve nature from all the unnecessary labor, and this is most effectually done by grinding or cooking.

Feed hogs at a time no more than they will eat.—We are apt to consider swine as not very particular in matters of taste, but a well fed porker is occasionally very fastidious in his food, and nothing at such times disgusts a swine sooner than to have his trough too deeply replenished. They should have enough at all times, however, and *enough* in fattening pork, means just as much as the hogs will eat.

Reserve your best and sweetest food for the last.—If you use, as most farmers do; and without it, making pork would be a dead loss to the farmer, at the prices corn and other grain has borne for some years past—apples or potatoes for feeding hogs, let them be given for the purpose of bringing them forward, and the filling up and finishing of the process be done with the corn or peas they are to receive. Apples will make as sweet pork as any feed in the world; but neither these, or potatoes, will give pork of the hardness and consistency of that made from sound corn, and of course where any of this is to be fed, it should be reserved to the time when its good effects will be most sensibly felt.

Experience has convinced me, that by following these few and simple directions, more pork, and of a much better quality, can be made from a given amount of food, than is now usually done; and when it is recollected that at the rate of only 50 lbs. to an individual; a small allowance; one hundred millions of pounds are required in this state, it will be seen that a saving of twenty per cent. in the feeding, or an increase of that amount in the product, amounts to a sum handsome in itself, and worthy of the notice of the producer as well as the consumer.

AN OLD FARMER.

Correspondence of the Nashville Republican Banner.
IMPORTANT TO FARMERS.

LEBANON, Sept. 14, 1827.

We have just witnessed the operation and performance of a newly invented and highly finished Straw Cutter and Corn-Shellor, in this place, where the proprietors are building them to order. This machine certainly surpasses any thing of the kind in the Union. It is the invention of Pendleton Cheek of Smith county. The knives will make eight hundred strokes or passes in a minute, and will cut up from sixteen to twenty bundles of oats in the same time.

Two hands, one to feed, the other to turn, alternately, can cut up, in a few minutes, (to half an inch in length,) as much hay, fodder, corn in stalks, and oats, as will feed a common farmer's stock.

From what we have seen of the machine, we are persuaded it cannot possibly get out of order, unless by design or great violence. The principles upon which it is built, and the materials of which it is made, seem to indicate great durability. It is also peculiarly well constructed for shelling corn, taking off every grain without breaking a single cob. Those who have not seen one of these machines will be struck, on examination, with its utility and beauty. Any farmer can avail himself of the benefit of one of them for \$75, as we understand that the proprietors intend finishing off, immediately, two or three to send to Nashville, Franklin and Columbia, for inspection. The remarkable and ingenious inventor, (Mr. Cheek,) invented, and is now building, a Thrashing and Fanning Machine, (on a plan entirely new in many of its features,) which will thresh and fan all kinds of small grain at a rate and in a manner unequalled. It has, in the first place, all the properties of a thrasher, and with the aid of one horse will comb or thrash from the straw with but little noise, one hundred bushels of wheat per day. In the next place, it can be converted into a fan mill, and with the same horse will fan out one hundred bushels of wheat, with proper attendance, in one hour. Any farmer having a cotton gin, (which is always idle in the summer,) can, by moving it away, and placing the band round the whirl or pulley of the thrasher, be ready to thrash and fan out all the grain in his neighborhood, with as much despatch as he could gin the cotton, and in proportion to the number of seeds of cotton that are lost in going through with the picked cotton, just so many grains of wheat is lost by not being taken out of the straw by the thrasher; and as long as the cotton gin (the invention of which has saved to the nation two hundred millions of dollars) will last, just so long will one of these thrashing machines last.

We understand that the Machines are all warranted to conform to the above description. Several are now in the neighborhood, the operation of which are highly spoken of by all who have seen them. It is said that they have all paid their cost (\$75) in one season.

A lady in Foxcroft, Me. has during the past season made 400 lbs. butter, 400 lbs. cheese from four cows, spun 300 skeins yarn, and wove 85 yards cloth.

RASPING MACHINE.

In Thorndike there is a very simple apparatus for grinding or rasping apples to make cider, which we thought would answer very well for

rasping beets. It consisted of a short cylinder about 8 or 10 inches in diameter, in which were driven bits of wire or headless board nails, in columns about three or four inches apart, running spirally, and the nails or wires separated, perhaps a quarter of an inch. This is made to revolve at the bottom of a hopper, and close to a hard facing on one side. The apples are crushed between the teeth on the cylinder and the hard facing, at the rate of about one bushel per minute. The apparatus is carried by water. It is owned by Capt. Timothy Ferril, a very large farmer. The same water machinery is made to turn a grinding stone and churning butter. A long lever, swung in the middle, which can be connected with the grindstone crank balances up and down, and plies the churn dasher at the other end. The butter from a large churn full of cream can be extracted in about five minutes. The water power is nothing but a little babbling brook, but Yankee ingenuity has compelled it to well work its way to a larger stream—to water horses, grind apples, turn grindstone, churn butter, and irrigate a fine home lot.—*Hampshire Gazette.*

CIDER.

Many persons, perhaps, are not aware of the efficacy of black mustard seed (*sinapsis nigra*), in preventing the acetic fermentation of cider.—About a half pint of the seed, put into a barrel of cider, will preserve it as sweet, from the usual time of making cider in autumn, till the following May, as the day it was put in. The mustard is of very easy culture; a few seeds scattered in some rich vacant spot, will ensure a successive crop—although the plant is an annual. The succeeding crops will be perpetuated by the seed which fall to the ground in autumn. But in order to secure the cider from any unpleasant flavor, it is highly important that the vessels be perfectly free from must. An effectual method of cleaning cider barrels is, by putting into each one about a quart of unslacked lime, after which, pour on about four or five gallons of boiling water. Cover the bung hole with a loose covering that some of the steam may escape, which will be generated in great quantities, to prevent the barrel from bursting. Shake it up several times and then rinse it with clean water. It will add also greatly to the quality of the cider, by being separated entirely from all the sediment. This may be done by filtering it through a hair sieve when running from the press, and then rack it off when it has stood a sufficient length of time, to leave any that might remain, settle to the bottom.

Farmer's Cabinet.

STUMPS.

Stumps are among the most troublesome obstacles in the settlement of a new country. A machine is sometimes used, with lever power, to eradicate them. It is literally a huge 'tooth puller.' It requires great power and much expense and time to accomplish the business, even with this machine. A better contrivance, because more simple and cheap, we saw practiced the other day. A little excavation was made in under the stump, and some combustible materials enclosed, and then set on fire. Previous to this, however, some dry materials were piled around the root, above the surface of the ground, and then covered over

with a compact layer of turf, forming a sort of coal-pit. It has been found, upon experiment, that the stumps will burn in this way, a number of days, with a sort of subterranean fire, and when the turf falls in, nearly every thing of the root is found consumed below and above the surface of the ground. Passing by a field near where the canal enters the Connecticut, a while since, we noticed smoke issuing from twenty little mounds of earth, and, upon inquiry, found they were burning out the stumps in manner above described.

Northampton Courier.

Feed for Cattle.—A little town near Farnkfort, in Germany, is noted for its remarkable fine cattle. They are fed in the following manner: straw is cut short by means of a straw cutter; it is then put into a cauldron, with the addition of potatoes and carrots, boiled till it forms a kind of jelly; this mixed with sufficient quantity of water is served to beasts. The animals so fed require no water, and so well do they thrive on this mess, that they are, notwithstanding the summer labour, ready to butcher at the end of the year.

All sorts of grain which is intended to be given to cattle or horses, is best ground. In order to obtain the greatest benefit from it, boil it in water, and while hot add cut straw, stirring it well, and when cool it will be fit to feed out.—*Practical Farmer.*

We do not aspire to rate ourselves with knowing amateurs of the Turf, but we admire the horse, as the noblest of our domestic animals, and are pleased with whatever tends to improve the breed. In this way we have in common with many of our best citizens, taken a lively interest in the history and success of Mingo, the best of our Pennsylvania stock, and very many competent judges believe him the best horse of the present time. All friends of domestic improvement will be happy to hear that Gen. Irvine has concluded to gratify his numerous friends, and means to keep Mingo the next spring and summer in the vicinity of Philadelphia. No one has done so much of late to improve our horses in this quarter as Gen. Irvine, and the farmers of Western Pennsylvania acknowledge their obligations to him for the most approved stock in all classes of domestic animals. It is said Mingo is rapidly recovering of the injury he received in his last race at Long Island.—*U. S. Gazette.*

Ely's New Gigantic White Wheat.—This is a new variety of winter wheat imported from England and raised near London. The size and weight of the berry surpasses any thing of the kind which we have ever examined; the straw is stout and measures from four to five feet in length. We would invite our agricultural friends to call at the store of Mr. Wm. Bristol of this city, and look at it, and if they do not say it is a little better than the best we will acknowledge that we are no judge. *Oneida (N. Y.) Whig.*

The great staple of the South is again advancing in price in the New Orleans market. Our slips, by yesterday's Express Mail, quote sales of Cotton as high as 12½ cents, and the lowest sales at 8½ cents.—*Nat. Int.*

FARMING.

When we consider how closely Agricultural pursuits are connected with *Natural Philosophy*, well may we wonder at the apathy unhappily too prevalent among the farmers concerning that important branch of knowledge.

The men who have done most for agriculture, are those whose minds were thoroughly imbued with the practical truths which that Philosophy teaches. Geology, mineralogy, arboriculture, botany, chemistry, are among the studies of everyday applicability in farming life—and yet how very few of our farmers, have any accurate acquaintance with those subjects. Knowledge on these matters, properly diffused throughout the agricultural community, (and it is valuable of course in all branches of society;) would vastly elevate the condition, mentally and morally, of those whose daily pursuits it is particularly applicable.

Unfailing sources of interest to young and old might thus be opened; the feelings might be gratified by that which strengthened the mind; and the omnipotence of the Creator be more sensibly appreciated from the close scrutiny of his works.

Happily, in branches of knowledge so interesting or essential, there is scarcely a lad with intellect so obtuse as to forbid him from mastering information without much expense from time or money. The requisite books are cheaply purchased, and few who commence the study will relinquish it after seeing how bountifully the inducements for pursuing it are spread around them. *Gen. Farm.*

AGRICULTURAL SOCIETIES

Are most certainly highly praiseworthy, and properly conducted, of vast utility in a country like this, with a climate so salubrious and a soil so exuberantly fertile. On expressing surprise to several farmers, that the institution was so much neglected, we found that great discontent prevailed with the manner in which it was conducted. It was said, that like other matters, in it the principles of monopoly had too great prevalence; the business of the institution was confined to a few interested individuals whose knowledge of agriculture and judgment of stock were extremely limited;—that the committees appointed for awarding and distribution of premiums are partial, either for want of sound judgment of the matter they investigated, or were guided by favoritism towards those who had but slender claims to preference. From the speech made by the President, we found that this jealousy did actually prevail, which is very much to be regretted. Whatever blame may deservedly attach to those whose over officiousness has given unbrage to the practical farmer, we did think that the latter class were not altogether clear of it. The institution should not be suffered to wither and die because a few individuals may have acted injudiciously.

The farming interest is an extensive one; the agriculturists form the great mass of the community; they do not want intelligence; why then should they not join the society in such numbers as to control those whom they complain of, or form a society among themselves, exclusive of all other professions? They are perfectly independent; not only independent but rich, and are perfectly able to conduct the business of a society

with justice and propriety. Let them then extend their views to other counties; let them invite farmers, and farmers only, to join them, and let them manage their own business in their own way, without connexion with men of other professions.

It is much to be desired, that a spirit of patriotism should rise among this most useful and important class of community, which would tend so much to the benefit of all.—*Cin. Adv.*

EGYPTIAN WHEAT.—The following paragraph showing the very curious mode in which this wheat was introduced into the Wisconsin Territory, is taken from the Chicago American of the 14th inst.

Egyptian Wheat.—We have received a specimen of Egyptian Wheat raised this season on Rock River. The seed was taken by our informant from the crop of a bird of passage, and this is the second season in which he cultivated it. Four or five seeds were all that he put into the ground the first season, and this year he has got a garden spot full of it. It has three pronged stems, and is a beautiful and superior production.

Cure for the Wounds of cattle.—The most aggravated wounds of domestic animals are easily cured with a portion of the yolk of eggs mixed in the spirit of turpentine of Florence.

The part affected must be bathed several times with the mixture each day, when a perfect cure will be effected in forty eight hours.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultiva-

tors

Superior Grain Cradles

Weldron Grain and Grass

Scythes

Farwell's Patent Double

Back Grass Scythes and

Snathes

Hay Forks and Rakes

Manure Forks, Shovels, &c.

English Corn Hoes

Superior American made

Casteel Hoes, with handles

Wheat FANS, of various

sizes

Mattocks, Picks and Grub-

bing Hoes

Corn Shellers

All kinds of Grass SEEDS

and Seed Grain bought and

sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of

Mr. D. Landreth's superior GARDEN SEEDS, raised

by himself, and warranted genuine. All communications

by mail, post paid, will receive prompt attention.

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Threshing Machines, with

or without horse power

F. H. Smith's Patent Lime

Spreaders

A great variety of Ploughs

of all sizes, with wrought

and cast iron Shares

Swingle Trees and Hames

Also, a great variety of

Plough Castings, constantly

on hand for sale

by the piece or ton. All

kinds of Machine Castings

made to order; repairs on

Ploughs and Machinery

done at short notice

Liberal discount made to

those who purchase to

sell again.

J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardiness, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozzettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28

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THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal, has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.

Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,

JOSEPH H. JONES, President.

RICHARD J. BOWIE, Sec'y.

Rockville, Montgomery county, Md. Oct. 20, 1837.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	
CATTLE, on the hoof,	100lbs	6 00	7 00
CORN, yellow ..bushel old 95a100	new	80	85
White.....do.do 92a95		80	85
COTTON, Virginia,	pound	11	
North Carolina,	"		
Upland,	"	10	12
Louisiana—Alabama	"		
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 37	1 50
FLOUR MEAL—Best wh. wh't fam	barrel.	11 50	12 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"		10 00
" wagon price,	"	9 50	
City Mills, super.....	"	9 25	9 75
" extra	"	10 00	10 25
Susquehanna,	"		
Rye,	"		
Kiln-dried Meal, in hhd.	hhd.	23 50	24 00
do. in bbls.	bbl.	5 00	5 25
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"		3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 25	7 00
Slaughtered,	"		
HOPS—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	38
PEAS, red eye,	bushel.		
Black eye,	"	75	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	100	1 08
Susquehanna,	"		none
TOBACCO, crop, common,	100 lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappry, suitable	"		
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	2 10	2 18
Red, best	"	2 00	2 10
Maryland inferior	"	1 80	1 90
WHISKEY, 1st pf. in bbls.	gallon.	39	40
" in hhd.	"		37
" wagon price, ..	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	
To Wheeling, ..	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do.	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	13	13½
Shoulders,	"	10½	10½
Middlings,	"	do	do
Assorted, country,	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"		
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 00	2 6
CHOP RYE,	"		1 75
EGGS,	dozen.	18	
FISH, Shad, No. 1, Susquehanna, ..	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,	"	4 75	
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	
Branch at Baltimore,	do	Farmers Bank of Virgi. 14a½
Other Branches,	do	Bank of Virginia,
Branch at Fredericksburg do		Branch at Fredericksburg do
MARYLAND.		
Banks in Baltimore,	par	Petersburg,
Hagerstown,	½a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do.		Danville,
Do. payable at Easton, ... 1		Bank of the Valley, ..
Salisbury, 2 per ct. dis.		Branch at Romney, ... do
Cumberland,	3	Do. Charlestown, do
Millington,	do	Do. Leesburg, ... 1½
DISTRICT.		
Washington, }		Wheeling Banks, ... a½
Georgetown, } Banks, ½p.c.		Ohio Banks, generally 6a7
Alexandria, }		New Jersey Banks gen. 5
PENNSYLVANIA.		
Philadelphia,	½a	New York State, ... 3a4
Chambersburg,	1	Massachusetts, ... 3a3½
Gettysburg,	do	Connecticut, ... 3a3½
Pittsburg,	¾	New Hampshire, ... 3a3½
York,	1	Maine, ... 3a3½
Other Pennsylvania Bks. 4		Rhode Island, ... 3a3½
Delaware [under \$5] ... 6		North Carolina, ... 5
Do. [over 5] ... 2		South Carolina, ... 8a10
Michigan Banks,	10	Georgia, ... do
Canadian do. 10		New Orleans, ... 12

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
oc 3 Baltimore, Md.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleyville, Halifax Co. N. Carolina.

SYDNEY WELLER.

Nov. 9, 1837—21

3t

ROBERT SINCLAIR'S NURSERY,
AT CLAREMONT, NEAR BALTIMORE.

This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the 1 each, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, Jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

ROBERT SINCLAIR, senr.

oc 17 5t

CLIME'S COMBINED PLOUGH.

The subscriber having purchased the right for Maryland, with the exception of Harford and Cecil counties, to sell patent rights for, and make and vend, the above ploughs, takes pleasure in informing the agricultural public and mechanics, generally, that he is prepared either to sell patent rights for counties or districts, in Maryland, (those counties excepted) or to supply all orders for said ploughs from adjoining states.

The above plough is eminently calculated for ploughing in small grain, for the cultivation of corn, potatoes, cotton, tobacco, and in fine for all row culture, as well as for turning up stubble in light soils. The public may form an idea of the superiority of this implement for the above purposes, when the undersigned states, that with the same propelling force, it is competent to do as much work a gain, as any other plough now in use. In corn culture owing to its peculiar construction, it not only turns under the grass and weeds, but hills the corn at the same time, thus dispensing with the trouble, labor and expense of hoeing. Nor is it less important in its manner of doing its work, so far as time and labor are concerned, as it lays its furrow with such accuracy, and so completely covers the superincumbent vegetable substances, as to ensure its speedy and effectual decomposition, thus preventing the re-vegetation of the matter turned under. In places where labor is high, this plough will of course be appreciated, as it effects a saving of 50 per cent., doing double work, —a thing worthy of farmers consideration, in these times.

J. T. DURING,

at J. T. Durning & Co's. fronting Grant and Ellicott-sts. in the rear of Mr. Adam Kye's Grocery, Pratt-st. wharf

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 32.

BALTIMORE, MD. DECEMBER 5, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: DECEMBER 5, 1837

We insert in to-day's paper, a communication from one of our most enterprising young farmers, upon the advantages of lime as an improver of the soil; and while we bear testimony to his industry and perseverance, we must be permitted to observe that every thing he says with regard to the sterile character of his land prior to his use of lime is true to the very letter, and that it has been a source of great delight to us in passing by his estate within the last year to behold its highly improved condition. Fields which but a few years since we could scarcely cross for briars—where nothing else save the poverty and sedge grasses could grow, we saw clover, timothy, and the various grains, luxuriating in perfection, thus incontestibly proving that barrenness had been supplanted by fertility, that industry, enterprise, and intelligence, had triumphed over neglect and the abuse of years.

Thanking our young agricultural friend for his valuable communication, we trust that his enlightened example will excite among his brethren of the plough no other feelings than those of emulation—and that they will go and do likewise. And as he has broken the ice, we hope he will often grace our pages with the result of his experience and practice.

BROOKS' SILK SPINNING MACHINE,

AND

THE SILK CULTURE.

We have always been sanguine with respect to the ultimate success of the silk culture in this country: our opinion was grounded in our honest belief of its great profits, its happy adaptation to our soil and climate and to the interests and wants of our people: but there was one difficulty which always presented itself to our mind, and made us fear that some years would have to revolve around before it would be fully established. We allude to a want of a market for the cocoons. Almost any farmer with his own domes-

tic force, could gather leaves, feed and attend the worms, and produce a crop of cocoons; but the latter without a market near at home, or the means of converting them into silk, being of a nature that forbid compression, and occupying much space, would not in that state bear distant transportation to find a market. And as matters stood a few years since, the only good effected in submitting the cocoons to the operation of the Italian reel, the one most approved, was to transform the delicate fibre from its conic shape into raw silk, which had again to be submitted to the operation of twisting before it could be said to be generally merchantable. All these difficulties, however, are in our estimation, entirely removed by the introduction of the excellent machine invented and successfully put into practice by Mr. Adam Brooks of Scituate, Massachusetts. Of this mashine, and its wonderful performance we had often heard, but could not from any description of its mode of operation, fully comprehend its very great use and peculiar fitness for the purposes of the American agricultural public. We had contemplated a jaunt to the eastward next spring for the purpose of examining the operation of one of Mr. Brooks' machines, and of gaining such a practical knowledge as would enable us to go into the silk culture the ensuing year, having already provided ourself with an abundant supply of the *morus multicaulis* trees, the best variety of the mulberry for the feeding of worms and production of silk. The opportune arrival of Mr. Brooks in our city, however, last week, has saved us all that trouble and expense. We prevailed upon him to take his machine out to our residence in the country, where he put it into operation, and worked up about half a peck of cocoons, to the entire satisfaction of every one present, not only winding off the gossamer silken fibre from the cocoons, but at the same time converting it into a most beautiful sewing silk, doubled and twisted, equal in evenness and fineness to the best Italian, and greatly superior in elasticity and strength. This was all done with perfect ease, and so simple is the machine in its construction that any woman can obtain a competent knowledge of it in two or three hours.

One great object in the construction of this machine, arising from its simplicity and fewness of parts, is, that it but seldom, if ever, gets out of or-

der, if well treated; and another not less important is, that should it by any accident become deranged, almost any ingenious mechanic can at little cost put it in repair. These are desiderata which must largely contribute to bring it into general use, and render it a favorite with every one engaged in the silk culture. With one of these machines, no farmer need be at a loss for a market for any silk he may raise, as his wife and daughters without neglecting their other occupations, with the aid of a lad to turn the wheel, can manufacture all he may make into good sewing silks. His silk thus fabricated, as every one knows, will readily find a market near at home, in almost every village; but should a market not be thus convenient, it can easily and at little expense be transported to any of the larger cities, where is sure to find a ready market and good prices. One of these machines, moved by a hand power, attended by a female and lad as above stated, can readily turn out from $\frac{1}{2}$ to $\frac{2}{3}$ of a pound of good sewings in a day. The value of the cocoons in their raw state is four dollars per bushel, that is \$4 per pound, a bushel making a pound; when manufactured into sewings, it will be worth from \$7 to \$11 per pound, according to the care and skill with which it may be fabricated. Let us now then, attempt an approximation to something like a calculation of the profits; and in order to do so, we will presume that a farmer has an acre in culture. We have in our unpretending Manual assumed, that an acre is competent to furnish foliage sufficient to support 540,000 worms; that calculation was based upon the supposition that they were to be fed upon the leaves of the *White Italian Mulberry*; but from our experience, we have no hesitation in affirming, that one acre planted in the *Morus Multicaulis*, or *Many Stalked Chinese Mulberry*, will furnish leaves enough to feed 1,000,000 of worms at the first feeding, and if the eggs be kept over, as they can be by being placed in an ice house, the same acre of trees will furnish foliage enough to feed a second crop of an equal number of worms. But let us wave the feeding of the second crop, and this will be the result.

A million of worms will produce 333 $\frac{1}{3}$ bushels of cocoons, which will yield 333 $\frac{1}{3}$ lbs. of silk, which silk when made into sewing silk will be

worth at \$7 per pound, the minimum or lowest price, \$2333 33 $\frac{1}{3}$; if we deduct the expense of manufacture, as follows: 2 women, or girls, are competent to attend 4 machines, with the aid of 4 boys to turn the wheels: in 6 months, with easy work, these can convert into sewing silks. 333 $\frac{1}{3}$ lbs of silk. I set down the wages of the two women at \$3 per month, which for the 6 months they will be occupied, will amount to \$36; allowing their board to be worth \$10 per month, it will be \$110; the wages of the boys at \$5 per month, is \$120, their board at \$10 per month, is \$240; cost of the services of two women to reel 333 $\frac{1}{3}$ lbs. of silk into skeins, say two months, board \$40, wages \$12; interest on cost of 4 machines, say, first cost \$40 each, transportation, \$5=\$180; interest per annum at 6 per cent., \$10 80; cost of cleansing, coloring, and doing up into separate skeins, if done at a dye-house, \$1 per pound, on two-thirds, say 222 lbs.=\$222; cost of cleansing the balance of 111 lbs. 25 cents=27 75, or for the whole process, \$249 75; cost of feeding the worms, if fed on *morus multicaulis* leaves, \$41 63.

Now let us see how the account current will stand:

RECAPITULATION.

ONE ACRE OF SILK, IN ACCOUNT WITH CULTIVATOR.	
	Dr.
For wages of two women 6 months,	\$36 00
For board of do. " "	120 00
For wages of four boys, " "	120 00
For board of " " "	240 00
For cost of two women to reel,	52 00
For interest on cost of 4 machines,	10 80
For cost of cleansing, colouring, &c.	249 75
For cost of feeding the worms,	41 63
Balance as per contra,	1,463 15 $\frac{1}{3}$

\$2,333 33 $\frac{1}{3}$

Cr.

By value of 333 $\frac{1}{3}$ lbs of sewing silk, at \$7 per pound,	\$2,333 33 $\frac{1}{3}$
	\$2,333 15 $\frac{1}{3}$

By balance, or clear profit of one acre in the silk culture, the silk converted into sewing silks, \$1,463 33 $\frac{1}{3}$

The agricultural reader will perceive, that in this estimate we have taxed the acre in silk culture with *laborers*, and the board of such labourers, as though the cultivator had been compelled to call in *extra help*, whereas we believe that there are very few who would engage in the business but would have the necessary help within themselves, for all purposes except feeding the worms, and this expense from the circumstance

that the leaves can be gathered and the worms fed just as well by children from 7 to 10 years of age, as by grown persons, it only being necessary to employ one careful hand in the cocoonry to give a general superintendence over them may be much reduced. And what more beautiful or interesting employment could a farmer ask for his wife, daughters and sons, than that of tending to silk worms, an occupation that the empresses and nobility of the *east* monopolized for centuries. He will also perceive that the cost of dyeing, cleansing and separating the skeins forms a heavy *item*, because it is presumed that this work is to be performed at a dyeing establishment; now the truth is, that any good housewife with the directions contained in the work we had the honor of publishing a year or two ago, may save to her husband all this expense, saving and excepting about 10 cents per each pound of silk, for dye-stuffs, making \$22.20. —If then we abstract these expenses, which may be saved, it will make a difference in favor of the cultivator of \$795 55. That the dyeing, cleansing and separation of the skeins may be as well done in each cultivator's family, we have no hesitation in affirming; for Mr. Brooks exhibited to us samples of sewing silk, which had not only been spun by his wife, but cleansed, dyed and put into skeins also, and we do not ask too much for it when we say, that it will lose nothing by comparison with the very best Italian sewings we have ever seen. He also shewed us some specimens of silk handkerchiefs which had been made by his lady, and wove on a common loom; these for softness, fineness, and high finish, were equal to any imported article in the market. The stamping of the figures on these were executed by Haliday of Lynn, Mass.

It may not be inopportune before we conclude to make a few remarks in explanation of our former *estimate* of the cost of attendants during the process of feeding, which occupies about 6 weeks at farthest. As we have before premised, that estimate was based on the supposition that the leaves were to be gathered from the white Italian Mulberry, and as the leaves of the *Morus Multicaulis* is nine or ten times larger than those of the former, the expense is consequently reduced in a proportionate ratio; but as we like to make *full allowances*, we have only in *this estimate* reduced the expense one half.

In our Manual we stated that the legislature of Mass. had granted a premium of 50 cents on every pound of *reeled* silk; they have subsequently repealed that act, and now grant a premium of \$1 on every 10 lbs. of cocoons raised in

the state; 50 cents per pound on all silk raised and reeled in the state, and 50 cents for all silk grown, thrown or twisted in that state; thus giving a premium of \$1 per pound to the producer and manufacturer of sewing silk, an amount fully equal to all the labor, where it is done as it should be, in one's own family. This act of high and exalted patriotism acts as an incentive among her citizens, and is producing the happiest effects upon the interest and well being of that ancient commonwealth. Should not her noble example urge upon the legislatures of the other states of the confederacy to make enactments granting similar bounties? We think it should.

We cannot close this article without mentioning that Mr. Brooks will deliver Reels in Baltimore, competent to perform the work of converting cocoons into sewing silk, for from \$40 to \$45; his residence is in South Scituate, Massachusetts, where he manufactures them extensively. He has already received *premiums, medals, and certificates of excellence*, from the following Institutions.

"The Agricultural Society of Plymouth county, Massachusetts."

"The State Agricultural Society of Massachusetts."

"Philadelphia Agricultural Society."

"Kennebec (Maine) Agricultural Society."

"New York State Agricultural Convention."

"Fair at Boston, Massachusetts," and the

"New York American Institute."

ADVANTAGES OF LIME.

To the Editor of the Farmer and Gardener:

DEAR SIR—Although unaccustomed to writing for the public, it gives me pleasure to comply with your request in my plain way in giving you my views in relation to the value of lime, and the result of my experience and observations in the use of it. Few have been more benefitted by the experience of others, and none more willing to profit by the good example of a neighbor, I cannot of course object to offering my mite to the common stock, trusting that, like the widow's mite, it will be received with the same liberal feelings with which it is offered. At the age of eighteen I took possession of a large farm within six miles of Baltimore, which had been tenanted out for upwards of 40 years without any restrictions. To you who have a personal acquaintance with it, it would be unnecessary to say, that it was completely worn out; but a stranger may form some idea of its miserable condition, when I assure you that for several years before I took charge of it, the income from 600 acres did not amount to \$150 per year. I soon discovered that it was perfect folly to farm poor land, and directed my energies to improving. My attention was soon directed to lime, by an old English gentleman who had lately bought in my neighbourhood; but so strong were

the prejudices of the farmers generally to trying "visionary notions," that it was thought only those who had money to throw away could afford to use it; and as I had none to spare, I concluded to follow the example of my "old experienced and most thrifty neighbours," by sending a load of wood to the city, and bringing a back load of ashes. This I continued for several years, by which time I was fully convinced it was too slow a business, for I discovered that by the time I would reach the third or fourth field, I should have to go the rounds again; besides, with all my industry through the winter, we could not get up more ashes than would manure 19 or 12 acres, consequently requiring 20 years to improve 200 or 240 acres. This I thought would never do; to look forward to growing gray at so slavish a business, was rather a dull prospect for a man of my sanguine temperament. In the meantime I had been watching closely the effect of lime on my old English neighbor's farm, and was by this time convinced that there was something more than "visionary notions" in the use of lime, and at once looked to lime as the only way for me to get along; but how to manage it was the difficulty—I had not the ready cash to buy with, and was afraid to go in debt. I saw an abundance of limestone about three miles above me, which seemed to be little valued, and knowing I had plenty of wood, soon went to calculating what it would cost me to haul the stone and burn the lime, and at once satisfied myself that by doing the work "within myself" the cash expenses would not exceed 8 or 10 cents a bushel, whilst I should have to pay the lime burners 24 cents. I at once went to work to build a kiln that would burn 1500 bushels, and never shall I forget the concern it occasioned among my friends. Those who lived in the midst of limestone, thought it impossible my experiment would succeed, having such a distance to haul the stone, whilst my "old experienced neighbors" still thought it money thrown away to put lime on the land; and, never shall I forget the earnestness with which an old and valued friend, Mr. T. admonished me of the hazard I was running, and the seriousness with which he attempted to dissuade me from my "wild notion;" the boy he was sure would ruin himself, for the old gentleman well knew that my cash means were very slender. "The boy," however, persisted, and I am sure I would not exchange the profits of my lime kiln for that of some of the gold mines. Every day convinces me more strongly, that but for my lime kiln, I should have been a broken farmer. My kiln was scarcely under way before the example was followed by another, and now, after a lapse of 8 or 10 years, they are as thickly dotted over the neighborhood as you will find in any part of the county where they have limestone on the spot, and it has become a proverbial saying, that wherever you see a lime kiln, "that man is well to do." As to the mode of applying it, I have ever pursued the same system, viz. spreading it on the surface, the quantity depending on the condition of the land; on very sterile soil, the quantity should not exceed 50 bushels per acre, and I doubt very much whether the product of any land will be increased for the first few years by a larger quantity; but where (as is the case with myself) it is important to save manual labor, you may safely put on land that has

a sod on it from 120 to 150 bushels per acre, and no doubt the effect will continue many years longer than if a smaller quantity was applied. On my farm, I have two kinds of soil, the gray rock and a gravelly soil; lime acts powerfully on either, but most so on the gray rock, and I find will admit of a much larger quantity being used at a time; on land that would not bring more than three barrels of corn to the acre, I am confident has often by one dressing of lime been made to produce the first year from 5 to 7 barrels, and land that a few years since was covered with poverty grass and briar bushes, now produces me fine crops of timothy, corn and wheat. It is highly gratifying to see the eagerness with which the young farmers of my neighborhood are improving with lime, and the white heaps in the spring afford a delightful variety to the appearance of the neighborhood. As long communications are never read, I will cut this short, with the promise to write you again. Yours, &c. W. G.

Baltimore County, Nov. 28.

From the Farmers' Cabinet.

RAISING AND CURING PORK.

AUBURN, FREDERICK, CO. OCT. 29, 1837.

In vol. 2d. No. 6, of the Cabinet, a Chester county writer asks some person who is experienced in the preservation of pork, to communicate through the Cabinet, the best method of preserving that indispensable article in sweetness of flavor, during the hot months of summer. What little information I possess in curing bacon, as practised by me for a number of years, and which, on a fair trial, I am induced to believe will be found fully equal if not superior to the Burlington or even the celebrated Westphalia, I give with much pleasure.

In order, then, to have good *bacon*, it is necessary to have good *hogs*. By good hogs I mean those of an approved breed, proper age and size; much more depends on the breed of the hog than is generally supposed, and much, very much upon the age and size. The most approved breeds for bacon, are the cross of the Parkinson with the Siberian, or the Chinese with our common stock; the meat is more delicate in flavor and taste, and easier to be raised and kept fat. Hogs from fifteen to eighteen to twenty months old, are the best ages; and weight from one hundred and thirty to one hundred and eighty pounds. Hogs of less age than twelve or fifteen months, have too little firmness and solidity to retain their juices, and after smoking become hard and dry; the same objection holds good as to the weights under one hundred or one hundred and twenty. Hogs of two hundred pounds or upwards are too thick and large to be thoroughly salted and smoked; consequently difficult to preserve any length of time. The next thing to be considered is, the mode of fattening. I prefer a pen large enough to enable them to exercise and prevent crowding; in a close pen they will fatten quicker. I commence with corn, either shelled and set in troughs, or thrown to them in the ears; for the first four or five days they should be fed sparingly to prevent surfeit, and never at any time should more be given them than they eat up clean. If given in large quantities, it will either produce surfeit and prevent them from eating for a day or two, or they will waste it by chewing and throwing

it out again. From six to eight weeks, according to the plight of the hogs when penned, (to say nothing about putting up in the increase of the moon and killing in the full,) will make them fat enough. My hogs are fed three times a day, morning, noon and night, and entirely on good sound corn, except occasionally throwing them raw potatoes or cabbages, which serves to cool the system heated by the corn. Charcoal or rotten wood, containing a large quantity of pyroliginous acid, is constantly kept in the pen—they are regularly salted twice or thrice a week. I hold it as an established fact, that no food for hogs, except good sound Indian corn, can ever make bacon of the first quality. Slops will make fat hogs, but never can make prime bacon. Your hogs being now fattened, the next thing to be done is to kill or slaughter them. I have a small and very substantial pen made convenient to the slaughter house, so as to bring them into as small a compass as possible, for the greater facility of catching; as soon as one is caught he is brought out of the pen and laid upon his back on some loose planks a little elevated from the ground to admit the blood to escape; he is then stuck and held fast until dead; not permitting to struggle or wallow in his blood or become bruised, as a bruise at that time will be manifest even after it is cooked and brought on the table. As to the mode of scalding and cleaning, &c. &c. it is unnecessary to give any directions. Unless the weather is so cold as to endanger its freezing, it is suffered to hang out all night so as to become thoroughly cold and stiff, when it will cut up much more smooth and neat. As to the mode of cutting up, I shall say but little. I make six pieces from each hog for salting; the feet should always be sawed off instead of being cut off with an axe or cleaver, as it will leave a smoother surface and prevent any place for the lodging of skip-pers. The feet should be cut off a little below the joint. The next and most important matter is the salting. It is almost impossible to find two persons who agree as to the best mode; some use fine, some coarse salt, some cayenne pepper, some sugar, some molasses, some nitre, and some none, and some again prefer brining. But as I have promised to give you my method, I shall proceed to do so. After cutting up my pork, I select my hams and shoulders, lay them side by side, skin down, on some loose planks elevated at one end to permit the blood to drain off freely; they are then salted, or what is called sprinkled, with the best clean Liverpool ground alum salt. After remaining in this situation for two or three days, or until they become perfectly white, they are then taken up piece by piece and laid on a clean table; to each ham and shoulder, according to size, I put two tea-spoonfuls or more of finely pulverised nitre, rubbing with the hand both the flesh and the skin side; it is then well rubbed with salt and laid in a clean tub—after putting in as many pieces, side by side, skin down, as the bottom of the tub will contain, I fill up all the interstices with salt, then another layer of meat and salt, and so proceed until the tub is full. In four or six weeks, in a good cellar, it will have absorbed as much salt as it ever will, (you see from this remark, I do not believe in over salting hams and shoulders.) Ten days or a fortnight, before taking out of the tubs, I have some young green hick-

ory wood cut and burnt by itself, the ashes collected and sifted; after taking the meat out of the tubs and wiping it dry with a clean coarse towel, it is laid in a wooden box sufficiently large to contain two pieces, the hickory ashes thrown over them and well pressed on with the hand; it very soon forms a hard incrustation over the meat, and prevents as well evaporation, drying and dripping, and is also one of the best preventives against bugs and skippers. After hanging in the smoke house for a day or two, the operation of smoking commences, which I continue for three months, or until the first appearance of the *green bottle fly*. My meat is smoked exclusively with green hickory wood; the green oak will answer very well. It cannot be smoked too much, though with the smoke there should be as little heat as possible; the largest pieces should be hung more immediately over where the fire is made. Early in the spring, say the first of April, or earlier, should the weather be warm, or you discover any of those *green coat gentry* about your meat house door, take down your hams and shoulders and pack them away in your salting tubs, placing between each layer of hams or shoulders, pieces of lathes to prevent too much pressure or coming too much in contact, otherwise they will be apt to mould where they press one upon another.—After filling your tubs in this way until about one foot from the top, fill up with hickory ashes pressed close. These are my ideas, obtained from experience, and thrown together in a very homespun manner, and should they on trial, be found to please the palates of others and be generally adopted, I may hereafter be benefitted, provided the water of Pennsylvania boils hams as well as the water of Maryland, as I sometimes travel from home and am a great lover of good bacon. In conclusion, I must observe, that there is really as much in the proper mode of *cooking* a ham as there is in *curing*. You Pennsylvanians boil too much; the best ham that ever was cured in Maryland or Virginia, may be spoiled in Pennsylvania by injudicious cooking. Hams cured in this way—like pure wine—improve by age and arrive not at perfection until they are over two years old. One thing I omitted to remark in its proper place. A ham, to come on the table in perfection, should never be cut before cooking—the skin should not be taken off—the thinner it is cut the better.

With great respect, and my best wishes for a wider circulation of your very useful paper,

I am your most obd't servant,

T. W. JOHNSON.

From the Same.

LIME.

The discussion respecting the application of lime as a manure, reminds me of the anecdote of the old man giving advice to his son. "Put your lime," he said, "if possible, on your sod before it is ploughed. If you can't put it on before it is ploughed, put it on as soon as possible afterwards. And if you can't put it on after it is ploughed, then put it on the best way you can."

My design, at present, is to communicate a few facts, which have come under my immediate observation, and the result of the experience of others, in the application of lime as a manure.

In this vicinity it is becoming almost universal-

ly the practice, to apply the lime to the sod, the year previous to its being planted with corn.—With this method several advantages are connected. *First*, The lime may be hauled and spread, at any convenient time during the season—say, in May and June, between corn planting and hay harvest. *Second*, The crops will derive much more benefit from its being put on the land some length of time before it is ploughed, than to put it on just at the time of putting in the crop. It has been duly ascertained, that one of the principal effects of lime—is, the decomposition and bringing into action, the inert vegetable matter in soil. When lime is spread on the sod, it comes into immediate contact with the grass, and grass roots, than when the ground is first ploughed; in fields which have been partly limed on the sod, then ploughed, and the remainder limed at the time of planting with corn. I have observed in ploughing up corn stubble, that the part limed on the sod, ploughed up much mellowed, than that limed *after* the sod was ploughed; presenting a rich vegetable mould not observable in the other part of the field.

There are no kinds of crops which have come under my observation—namely, corn, oats, barley, wheat, rye, potatoes, clover and timothy, but what are benefitted by lime, with the exception of flax. Where flax was formerly raised to great perfection, a very inferior article is now produced, since the application of lime. This has almost led to the abandonment of its cultivation in many sections of the country.

Oats, however, if the lime is applied fresh the season it is sown, will rather be injured than benefitted by it, in preventing it from ripening. I have seen oats, in fields which had been recently limed, send up an indefinite number of suckers or young stalks from the roots—which, together with the parent stalk, would scarcely ripen if allowed to remain the whole season in the field; and the stubble would sprout up profusely after a crop was taken off. But when the lime has been applied a year or two previous, it is decidedly a benefit to the oats. Lime can be applied with advantage, whether put on fresh, or left exposed to the elements till it becomes cold. This has been exemplified in the application of mortar from old buildings which has been known to produce lasting effects. I have been told by a person who has had much experience in liming, that he has had clover to succeed better, after putting it on fresh slacked and hot, than in any other way.

The Lancaster turnpike, in the vicinity of the Great Valley, is supplied with stone from the quarries of primitive limestone in the south side of the valley. I have observed a field adjoining the turnpike of a thin slaty soil—the subsoil of which is composed entirely of a slate gravel, (and perhaps there are many others of a similar nature and similarly situated;) which has had no burned lime applied to it for perhaps an age, and yet is remarkable for its productiveness—being far superior to many others in its vicinity, which are possessed of a much richer natural soil. Part of this field receives the flood of the turnpike, by which it becomes overspread with the pulverised limestone of the road; and the other part is visited, in dry weather, by clouds of dust—which in my judgment, is the great stimulant to its vegetable productiveness.

If these facts amount to any thing, it appears that lime applied in whatever form, is a stimulant to vegetation. But the form and manner in which it may be most advantageously applied, I leave for others yet to determine.

A.

Chester county, November 2nd, 1837.

From the *New England Farmer*.

BEE T SUGAR.

We were much pleased by the reception of the following communication, together with a liberal specimen of the first fruits of a kind of a domestic manufacture, destined, as we hope and believe, to become of very great importance to this country, by rendering us independent of foreigners for one of our greatest and most expensive articles of household consumption.

Salem, Nov. 8, 1837.

T. G. FESSENDEN, Esq.—*Sir*: I take the liberty of sending you herewith, a small sample, from 5 lbs. of Beet root Sugar, manufactured by Mr. G. Perkins and myself, from roots grown at my cottage garden, at North Salem. In conducting this, our first experiment, we effected the process of rasping with my small grater cider mill, turned by hand, and expressed the juice from the pulp, by means of an old fashioned condemned lever press.

With so rude an apparatus as this, we could hardly promise ourselves any extraordinary results; in fact, our only object was, to satisfy ourselves that we could produce chrysalized sugar. We obtained 8 1-2 gallons of juice from the 200 lbs. of beets, and taking Chaptal for our guide, followed out the process as delineated by him in the latter part of his *Agricultural Chemistry*; a book, by the way, which should occupy a place on the shelves of every Farmer's Library.

I have about 1000 lbs. of the sugar beet in my cellar, with which we intend to pursue our experiment, as also that of refining; and should we succeed in this last and most important process, we shall avail ourselves of an early opportunity of presenting you with a loaf of our first and finest quality. With much respect,

I remain your friend and servant,

PICKERING DODGE.

From the *Zanesville Gazette*.

AGRICULTURAL EXPERIMENTS.

MESSRS. PARKE & BENNETT:—If you think the following experiment deserving the attention of my brother farmers, it is at your service.

Last spring, having a piece of ground which had been in grass for several years, I had it broken up as deep as possible with a strong ox team and plough adapted to the purpose. I then chetquered it about 3½ by 3 feet and covered the crosses with long manure plentifully, and on this dropped the potatoes, taking for each hill a whole potatoe and cutting it in two. The potatoes were then covered about an inch and a half with earth, and the cultivator was afterwards run three times through the ground, but no fresh earth reached the growing crop. From this strip of ground 12 rods long by 21 feet in width, measuring from the adjoining corn across to the fence, I measured 100 bushels of potatoes, and a quantity, from 5 to 10, was put away without measurement. The quantity of land being about one tenth of an acre,

the yield was more than at the rate of 1000 bushels per acre, which at 25 cents, the price potatoes have brought this fall in Zanesville, would be \$250.

The kind of potatoes used was what are by some called the "long reds." It is proper I should say that this experiment was made in accordance with hints derived from the Genesee Farmer; and I have also this fall tested to my satisfaction the practicability of fattening hogs on apples.

About the first of September I put up six hogs, one of which was an old sow which had just suckled a litter of pigs, and was in a very thin condition. These I fed for three or four days on sweet apples, but at the end of that time I found they would not eat; I then threw them a quantity of very sour apples which they devoured rapidly. I afterwards fed them freely on a mixture of sweet and sour apples, giving them for drink the ordinary slop of the kitchen, and when that was not sufficient I gave them spring water; I never saw hogs thrive more rapidly. The sow I fed six weeks, the others only four, when I sold them to one of the Zanesville butchers, for market use. They were excellent pork.

It is my opinion that two acres of orchard will, taking the seasons on average, make as much pork as 6 or 8 acres cultivated in corn.

A MUSKINGUM FARMER.

Nov. 20th, 1837.

LIMESTONE,

GROUND, BUT NOT BURNED, FOR AGRICULTURAL PURPOSES.

The following paper, on the use of *Limestone*, *ground* instead of *burned*, for agricultural purposes, was read before the Lyceum of Natural History of New-York, by Wm. Patridge, Esq.

The facts therein set forth, are highly important, and worthy of being tested by those who have limestone on their farms. We ask for this subject, the attention of our readers, and of those who have heretofore tested or may hereafter test, the theory by experiment, to furnish us a statement of the result for publication. We shall also be much obliged to Mr. Patridge for a continuation of his favors.

To the President of the Lyceum of Natural History.

Sir—In a conversation I had with you on board a steamboat on the North river, sometime during the summer of 1835, relative to lime, as applied agriculturally, I mentioned the advantage of using it generally in a ground state, as plaster is now used, instead of burning it. You informed me, subsequently, that your farmer had applied some on your land in a state of powder, and found it decidedly beneficial. I then promised to send you my written opinion on the subject, and I now beg leave to fulfil that promise with an apology for delaying it so many months.

It is well known to every intelligent agriculturist, that soils covering limestone rocks are the most productive of any on the globe. I know of but one exception, when the limestone is too highly charged with magnesian earth. Our country affords many facts in proof of this assertion. I shall refer to two locations as all sufficient for my purpose. The State of Kentucky has a bed of limestone running underneath its whole sur-

face, and its natural soil has been produced, and is still producing by the abrasion of those rocks.

—The superior productive powers of the soil of the State is well known to every intelligent farmer in our extensive country, and is spoken of in terms of admiration by Europeans. That part of Pennsylvania extending from the Lehigh Water Gap to Easton, is a limestone country, and affords another instance of its highly productive powers.

In England, the soils deposited in valleys at the foot of limestone hills, are equally productive.—The valley running from the City of Bristol to the city of Worcester is of this description, and there is no soil more productive in Great Britain.—There are more than twenty spurs of hills bounding that valley, each containing large bodies of limestone rock, and the springs flowing from them, are so charged with limestone, as to incrust every thing lying in them. When the springs issue from the rocks high up the hills, they are much used for irrigating the higher lands, and the beneficial effects are visible to every observer.

Lime, in the state of Chalk, is also used very generally in land near to the Chalk Mountains in England.

The lower part of this State abounds in primitive limestone, and the preceding observations were made with a view to apply the facts, rectify a material error committed, as I conceive, by the farmers in using it on their land. They burn the limestone at considerable expense, and in that state use it for agricultural purposes. I would suggest, as a far better general application, that the limestone be merely ground, and in that state applied to the land. As this may be a new mode of application, I shall endeavor to shew wherein it is preferable to the present.

I have been frequently informed by farmers who use burnt lime on their land, that they keep it some months before using, and that then the good effects are not observed the first year. We have only to ascertain what these facts prove, and the whole mystery will be instantly solved. In burning limestone two materials essential to agricultural productiveness are driven off, its water and its carbonic gas. In its natural state it is a carbonated hydrate, when burnt it is caustic lime (oxide of calcium) made so by the heat driving off its water and carbonic gas. Why does the farmer delay putting it on his land, but for the simple reason that it is too caustic for vegetation. Why does it require to lie in the soil one year before producing any visible fertilising effect? It is for nothing more than to give it time to return again to a state of carbonated hydrate, the same condition it was in before burning.

I have said that limestone merely ground is the best general mode of applying it to agricultural purposes; there are some exceptions to this rule. When a soil contains "hard roots, dry fibres, or other inert vegetable matter, a strong decomposing action will take place between burnt lime, and the vegetable matter, rendering that which was before comparatively inert, nutritive." Where this is the case, it would be well for the farmer to use one-third burnt lime, and two-thirds of ground limestone, or any other proportion he may find most efficacious. For stiff heavy soils use limestone coarsely powdered, for in this state after being well ploughed and harrowed, so as to

mix thoroughly with the soil, it would so lighten it as to enable the sun and air to penetrate to the roots of its vegetation, thereby rendering the future crops more productive. For lighter soils it cannot be ground too fine. Our primitive limestone rocks are peculiarly well calculated for this purpose, as the particles are held together by a loose aggregation, and therefore easily reduced to small pieces, or to fine powder, at the option of the operator.

The question was asked, by a writer in a late New-York Farmer, "if it be possible that ground limestone can answer the purpose of plaster of Paris." I should say that it can, and it may be, eventually, to a better purpose. The fertilising property of plaster depends mainly, if not altogether on its hydratic property, that is, on its power to attract moisture during the night, and imparting it gradually to the plants during the day. The carbonate of lime possesses the same property in a considerable degree. I have never heard of these two limestones being analysed, for the purpose of developing their comparative powers of absorbing moisture from the atmosphere, and their facilities of giving out their moisture at atmospheric temperatures. To have this accurately performed, would be a desideratum with agriculturists.

We know that soils formed by the abrasion of limestone rocks are of the most fruitful description: we see its productive powers when land is irrigated with equal effect in the state of Chalk. Science has developed the properties on which this productiveness depends, and if our farmers would suit their appliances scientifically we should not now be receiving a supply of agricultural products from Europe.—[Winchester Republican.

PEACH TREE.

Peaches are of two kinds; the clearstone and the clingstone; but there are good varieties of each. The same sort can only be raised by grafting, or inoculation: This may be on apricots, or on plum trees, and will make the grafted trees longer lived. The trees should have a warm, dry, fertile soil: a sandy loam is best. If the spot where they are planted be sheltered from the northerly winds, it will be the better. To raise the young trees, take stones that are fully ripe, and plant them in October. They will come up and grow to a good size in the course of the summer. They are to be kept clear of weeds, while in the nursery. At a year's growth, they may be grafted, or inoculated, and after two summer's growth, they may be transplanted. This may be done when the leaves have fallen in autumn, or in the spring. Take plants with one strong clean stem, or if they have two, cut one away, however fair. Let the downward root be cut off, in order that the tree derive its nourishment from earth nigh the surface, which will make the fruit less crude, and finer tasted. Be careful not to plant the trees too deep; for this is injurious to all fruit. Let the pruning of the new planted trees be omitted, till they have taken root.

In making a proper selection of trees, from which to graft or to inoculate, a due regard should be had to three essentials.

1. To obtain the grafts, or buds, from trees bearing the finest fruit.

2. That this fruit should ripen at different times, from the earliest to the latest of the season for peaches.

3. That the grafts or buds be taken from trees which are plentiful bearers; but not such as bear so plentifully as to be broken by their fruit.

But, perhaps, the too plentiful bearing of trees is a quality not properly descendible to those which are raised from them by grafting or otherwise. It would be well to ascertain this point by experiment.

It is said by some, that if the stones of peaches be buried immediately, without drying, they will produce trees bearing the same kind of peaches as those whence the stones were taken. This is well worthy of particular trial.

EXTRACTS RELATING TO SILK.

It appears that the importation of manufactured Silks, during the year ending Sept. 30, last year, amounted to more than *seventeen millions of dollars*, being near a million more than the preceding year.

The Committee of Congress, on the subject of silk, say that the disproportion which has existed for the last twenty or thirty years, between the increase in the consumption of silks and the increase of population, and which is becoming greater every year, will, it is believed, present the *American silk growers* with all the aid and encouragement which may be extended to them by the National and State Legislature, from producing material in sufficient quantities to supply the demand for at least another century. Such being the case no fears need be entertained of our stocking the market, so long as "trees will grow or water run."

The Committee say further, that "could a general diffusion of practical knowledge on the subject of cultivating the tree and raising the worm be effected, no doubt the *United States would finally become one of the greatest silk growing countries in the world.*" A more thorough knowledge of the culture is now pervading every portion of the Union. The State governments are giving encouragement, and nothing wanted but that we should go ahead, under the existing state of things, with more perseverance than has yet been exhibited, and that another year will accomplish more than has been done in any preceding year. Our state governments are holding out encouragement to silk growers which they ought not to neglect.

Among the states offering a bounty, is the state of Maine—offering a bounty of 5 cents on every pound of cocoons grown within the state, and 50 cents on every pound of silk reeled.

Vermont offers a bounty of 10 cents on every pound of cocoon grown within the state.

Connecticut offers a bounty of one dollar on every hundred of Italian or Chinese mulberry trees, cultivated five years, and fifty cents on every pound of silk reeled on an improved reel.

But Massachusetts has done nobly, offering a bounty of 10 cents on cocoons, 50 cents for reeling a pound of silk, and fifty cents on throwing, equal to two dollars on the pound. It is now, the present year, ascertained that the bounty will cover the whole expense of gathering the leaves, feeding the worms, reeling and twisting—in other words, of putting it into raw silk; so that every

pound of silk raised in Massachusetts, shall be a *clear profit* to the silk grower. What greater encouragement than this can we ask for, when we can produce raw silk free of expense?—*Northampton Courier.*

RAINY DAYS.

How much time is thrown away by some farmers when the weather will not permit them to work out doors. And how well this time might be improved! There are many days and hours of wet weather in a year in which it is impossible to do work on a farm, and when these are lost, as they are by too many farmers of my acquaintance, they amount to a considerable sum. "Time is money," as my grand-father used to say—and further, "take care of the pence and the pounds will take care of themselves."

Now if this is good advice in money matters, it will surely apply to economy in time, to those hours and half days when the rain drives us under cover.

Well, how are these hours to be best improved? I will tell my brother farmers: get your selves a set of carpenter's tools, and make a work bench, and if you can plane a board and drive a nail you will find enough to occupy all your spare time.

The tools will cost but five or six dollars—such as are most necessary, and then you will be able to keep your outbuildings, fence, and many of your farming implements, in good repair. If your barn or stable door break down, mend it immediately the first rainy day. If a board is loose, put a nail in or replace it. If you want any plain, useful kitchen furniture, such as a pine table, benches, &c. take those occasions. But it is unnecessary to multiply the things that might be made or repaired in such times. Every farmer that looks around him (if he is not in the habit of so doing) will find the wood work on his place lamentably out of repair.

Besides, every farmer should accustom himself to the use of tools. When he wants a small job done, it wastes as much time often as it is worth, to go several miles after a carpenter. I know some farmers who have not a hatchet, drawing knife, auger, plane or working bench about their place.

The consequence is, their jobs and repairs generally go undone, and they have nothing to do in rainy weather. Is this economy? Yet such men will carry their grain five miles further to a market where they can get two cents more on a bushel.

POOR RICHARD.

THE SUN FLOWER.

The Sun Flower is a plant of much greater value than is generally known. Instead of a few being permitted to grace a parterre, and considered only as a gaudy flower, experience warrants my saying it should be cultivated by every planter and farmer as part of his provision crop. It can be turned to profitable account on all our plantations; for certain purposes it is more valuable than any other grain known to us; inasmuch as it can be made to yield more to the acre in exhausted soil, with little labor, and with greater prospect of success.

Its seed are wholesome and nutritious food for

poultry, cattle and hogs, and very much relished by them.

From the seed an oil is obtained, with great facility, as delicate, it is believed, as that of olives.

They are also pectoral. A tea made of them is quite as effective as flaxseed, or any other, in catarrhal affections. On one occasion, this tea, sweetened with honey, was of so much more service to me than the prescriptions of my physician, that I attributed my early restoration to health to its agency alone. Certainly a favorable change did not occur until I used this tea, which I did upon the recommendation of a citizen of one of the upper counties of North Carolina.

Its leaves and stalks, in the green state, are preferred by cattle to any other provender. I have thrown green grass and fodder in one heap, and sun flower leaves in the other, to try the cattle, and they have commenced eating the latter first; this I have tried often with the same result. The whole plant, cut up in the green state, and boiled with cotton seed, or a little meal, affords a delicious food for cattle and hogs. To be convinced of this, let one taste the bruised leaves or stalk of the plant; he will find its flavor aromatic like that of the parsnip, with more sweetness.—*Southern Agriculturist.*

DUTTON CORN.

PHILADELPHIA, Sept. 23, 1837.

Hon. J. Buel—Dear Sir:—Early last spring you shipped to me, at my request, a box of Dutton Corn. I was induced to give it a trial, by the various favourable accounts of it, in the 'Cultivator,' and the reputation it had otherwise acquired. The result of the trial is accurately stated in the annexed note, and may be relied on.—The appearance of the crop in July, so early and so prolific, was gratifying to all who saw it. The applications for seed are so numerous, that I shall dispose of the whole crop for that purpose.

Very respectfully,

W. L. HIRST.

"I planted the Dutton Corn in a thin orchard of 2½ acres, preparing the ground by ploughing in the green sward and harrowing; no manure was applied. The seed was steeped, and rolled in tar and ashes, and planted about 4½ feet each way the first week in May. I used the cultivator twice; on the 4th July, the corn in silk, and fit for cooking in the first and second weeks in August, but it was suffered to ripen on the stalks, and cut close to the ground early this month. The fodder is very tender and excellent. The yield is about 70 bushels to the acre. The main crop on the farm is the yellow gourd; but the Dutton is far superior: one hill of the Dutton yields more than three or four of the gourd, although the gourd seed was the best that could be procured. The two kinds of corn did not intermix; the fields were remote and the Dutton too early.

DAVID BURMAN."

Blockley Grove, near Philadelphia, Sep. 16, 1837.

P. S. I trust you will not cease to press on the public, the expediency of generally raising this species of corn: the crop is admirable, and even astonishing: the field, when the corn was nearly ripe, looking as if it was *all ears*. W. L. H.

Note—We plant 3 by 2½ feet, and get 5,308 hills on the acre. Our correspondent planted a-

bout 4½ each way, and had but 2,151 hills. Thus we obtain 3,657 hills, or more than 2½ to his one on an acre; and yet he obtained 70 bushels without manure. We introduce this comparison to explain to incredulous readers the cause of northern corn crops being sometimes deemed incredibly large. It is, however, to be borne in mind, that our corn is of comparatively dwarf growth, and will bear crowding more than the southern varieties.

We beg here to remark, that there is a late twelve rowed corn, which has been mistaken and sold for the Dutton, particularly in Berkshire, co. Mass. It grows stouter and taller than the Dutton, and ripens two or three weeks later.—*Cultivator.*

TO THE TOBACCO PLANTERS OF VIRG'A.

One well acquainted with the tobacco trade in Europe, begs leave to recommend to the planters of Virginia, the advantage that would result both to them as well as to the shipper, of putting up their crops in much softer order than they have been heretofore in the habit of doing, with a view to the English market, where the use of leaf tobacco is very limited, and is becoming more so every year. The crops for some years past have been sent to market so dry and so much smoked as to be unfit for any of the continental markets, and the consequence is, that the tobacco of the Western country from affording more leaf and pliancy is rapidly gaining a preference over the dry tobacco of this state, which can be used with less advantage even by the manufacturer and stemmer at home. While recommending it to be put up in softer order, care should be taken that the order should be such as to pass through the sweat without mould, and the sooner the crop is prized the better. Every exposure to weather after cured, takes from it more or less of the qualities for which this plant is esteemed. Great Britain is the only market that wants very dry tobacco, and the consumption of Virginia Tobacco in the kingdom of Great Britain and Ireland does not exceed 5000 hhds. Leaf and 4 to 5000 hhds. of Scraps. The greater part of our exports then are wanted for other markets than that of Great Britain.—*Rich. Whig.*

How to cook a Potatoe.—To boil a potatoe seems simple enough, and yet we can never find it well done. At the table of the great, a good potatoe is never seen, because if not eaten the very moment it is boiled the potatoe is good for nothing, and also because the refinement of peeling helps to destroy the savour. Another mistake is, to serve the vegetable in a covered dish, whereby the steam condensed by the cover falls upon the potatoe and it becomes sodden and waxy. If they are steeped in water long before they are boiled they become stale and watery. Put them into plenty of cold water with some salt. When they are about half boiled throw away the water, and pour fresh boiled water upon the potatoes from a tea-kettle, adding to it some salt. Let it boil up briskly.—When you have ascertained with a fork that the potatoes are very nearly done, throw in a cup full of cold water to check the boiling. The water will soon boil up again, and the potatoes will crack. Let the water then be drained off, and the potatoes be served up immediately

in an open dish with their skins on. The water upon them will evaporate the instant they are in the dish. They must be eaten at that moment, in ten minutes their fine flavor would be gone.

Magazine of Domestic Economy.

To make a wholesome food of Cashew Nuts.—Cashew nuts may be prepared as food, by blanching them with hot water to wash off the caustic oil, or roasting them in a pot like coffee; but care must be taken to avoid the smoke, which is very acrid. They may also be prepared by sticking them on fork, and burning them at a candle. The oil of the shell is abundant, and thoroughly roasts the kernel within. The kernel of the fresh cashew nut is made into an emulsion, like almonds, and universally used in the West Indies.

Useful Discovery.—A simple method to ascertain the presence of arsenic in food, however small a quantity, has recently been discovered; it is this: put a portion of the substance to be tried, and double its weight of soda, into a little glass tube. Close the open extremity of the tube with blotting paper, and then heat the other end with a taper. The arsenic is sublimated in a few moments, and adheres to the sides of the tube in the part which is not heated.

Easy method of purifying Water.—Take a common garden pot, in the midst of which place a piece of wicker work, on which spread a layer of charcoal of four or five inches in thickness, and above the charcoal a quantity of sand. The surface of the sand is to be covered with paper pierced full of holes, to prevent the water from making channels in it. By this process, which is at once simple and economical, every person is enabled to procure limpid water at a very trifling expense.

AUTUMN.

The dead leaves strew the forest walk,
And wither'd are the pale wild flowers;
The frost hangs blackening on the stalk,
The dew drops fall in frozen showers.
Gone are the springs green sproutin'g bowers,
Gone summer's rich and mantling vines,
And Autumn, with her yellow hours,
On hill and plain no longer shines.

I learn'd a clear and wild-toned note,
That rose and swell'd from yonder tree—
A gay bird, with too sweet a throat,
There parch'd and raised her song for me.
The winter comes, and where is she?
Away—where summer wings will rove,
Where buds are fresh, and every tree
Is vocal with the notes of love.

Too mild the breath of southern sky.
Too fresh the flower that blushes there,
The northern breeze that rustles by,
Finds leaves too green, and buds too fair;
No forest-tree stand stript and bare,
No stream beneath the ice is dead,
No mountain top with sleety hair
Bends o'er the snows its revered head.

Go there with all these birds,—and seek
A happier clime, with livelier flight,
Kiss, with the sun, the evening's cheek,
And leave me lonely with the night.
—I'll gaze upon the cold north light,
And mark where all its glories shone—
See!—that it all is fair and bright,
Feel!—that it all is cold and gone.

BRAINARD.

CHARLESTON AND CINCINNATI RAIL ROAD.

The Stockholders of the Cincinnati and Charleston Rail Road held a meeting at Flat Rock, N. C. in October, and adjourned on the 18th ulto. Upwards of \$4,000,000 stock was represented, and the utmost harmony and unanimity marked all the proceedings. We learn from the Charleston Mercury that there was not a dissenting voice as to the propriety of vigorously prosecuting the enterprise, nor was any proposition made from any quarter to substitute any other route for that which has been heretofore adopted, by the Vally of the French Broad River, and which has been proved by the survey to be a much better one than had even been anticipated.—the average fall for 140 miles from the summit of the Butt Mountain being but eight feet in the mile. The leading measures adopted embrace,

1st. The establishment of the Butt Mountain Gap—Knoxville in the State of Tennessee—and some point at or near Columbia, South Carolina,—as points in the road.

2d. The purchase of the Charleston Railroad, if the same can be effected on equitable terms, and pushing the State connexions through that road with the Southwest.

3d. The immediate extension of the branch from the Charleston road to Columbia, to be continued link by link through the centre of the State towards the Mountains, and as far as means may permit.

4th. An earnest appeal to the Legislature of Tennessee and Kentucky, for their concurrence in the bill granting banking privileges, and for liberal subscriptions on the part of these States, and a similar appeal to North Carolina for pecuniary aid.

To give the greatest possible effect to the appeal, the President of the Company was appointed a commissioner to the Legislature of Tennessee and Kentucky, to ask in behalf of the Company the assistance required. General HAYNE was unanimously elected President, and Colonel EDWARDS Treasurer. The mercury is further informed, that the surveys have been of the most satisfactory character, and the result of the whole proceedings has been to inspire fresh confidence in the enterprise. No instalment on the stock will be called for at this time. The Directors adjourned to meet in Columbia on the first Monday of December next, and the annual meeting of the Stockholders will take place at Ashville in October. A special meeting of the Directors was also resolved on at Lexington in September next.

CONTENTS OF THIS NUMBER.

Notice of a communication on the use of lime; an account of Brooks' silk spinning machine; communication on the advantages of lime; on raising and curing pork; on the application of lime; experiment of beet root sugar; experiments in raising potatoes, and in feeding hogs with apples; essay on the application of limestone, ground but not burned; culture of the peach tree; silk culture; work for rainy days; uses of the sun flower; dutton carn; advice to tobacco planters; to cook a potato; the cashew nuts; useful discovery; to purify water; ode to autumn; Charleston and Cincinnati rail road; prices current; advertisements.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	
CATTLE, on the hoof,	100lbs	6 00	7 00
CORN, yellow	bushel	75	80
White	"	57	80
COTTON, Virginia,	pound	11	
North Carolina,	"		
Upland,	"	10	2
Louisiana—Alabama	"		
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's	"		
Superior, st. from stores	"		9 75
" wagon price,	"	9 25	9 37
City Mills, super.	"	9 25	9 50
" extra	"	9 75	
Susquehanna,	"		
Rye,	"		
Kiln-dried Meal, in hhd.	hhd.	23 50	24 00
do. in bbls.	bbl.	5 00	5 25
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"		3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 25	6 50
Slaughtered,	"		
HOPS—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	33
PEAS, red eye,	bushel.		
Black eye,	"	75	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	100	1 04
Susquehanna,	"	none	
TOBACCO, crop, common,	100 lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"		
" ground leaf,	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	2 00	2 10
Red, best	"	1 85	1 95
Maryland inferior	"	1 75	1 85
WHISKEY, 1st pf. in bbls.	gallon.	43	44
" in hhd.	"	42	42½
" wagon price,	"	bbls	39
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	
To Wheeling,	"	1 75	
WOOL, Prime & Saxon Fleeces,	pound.		
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do.	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured	pound.	13	13
Shoulders, do.	"	10½	10½
Middlings, do.	"	do	do½
Assorted, country,	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"		
CIDER,	barrel.		
CALVES, three to six weeks old	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 87	1 94
CHOP RYE,	"		1 75
EGGS,	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,	"	4 75	
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	
Branch at Baltimore,	do	Farmers Bank of Virgi. 1½a 1½
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	¾a	Norfolk,
Fredrick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton, ... 1		Bank of the Valley, ... 1
Salisbury, 2 per ct. dis.		Branch at Romney, ... do
Cumberland,	3	Do. Charlestown, do
Millington,	do	Do. Leesburg, 1½
DISTRICT.		Wheeling Banks, a 3½
Washington, } Banks, ½p.c.		Ohio Banks, generally 6a 7
Georgetown, } Banks, ½p.c.		New Jersey Banks gen. 5
Alexandria, } Banks, ½p.c.		New York City, 4
PENNSYLVANIA.		New York State, ... 3a 4
Philadelphia,	¾a	Massachusetts, ... 3a 3½
Chambersburg,	1	Connecticut, ... 3a 3½
Gettysburg,	do	New Hampshire, ... 3a 3½
Pittsburg,	¾a	Maine, ... 3a 3½
York,	1	Rhode Island, ... 3a 3½
Other Pennsylvania Bks. 4		North Carolina, 5
Delaware [under \$5] 6		South Carolina, 8a 10
Do. [over 5] 2		Georgia,
Michigan Banks,	10	New Orleans,
Canadian do. 10		

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleyville, Halifax Co. N. Carolina. SYDNEY WELLER.

Nov. 9, 1837—21

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
a 29 EDWD. P. ROBERTS, Baltimore, Md.

FARMERS' REPOSITORY,
PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry. Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Manure Forks, Shovels, &c.
English Corn Hoes	Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Superior American made Casteele Hoes, with handles	Liberal discount made to those who purchase to sell again.
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
Jy 4 J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardiness, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozzettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees are packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

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MORUS MULTICAULIS.

The subscriber has now growing at his residence about 2 miles east of BALTIMORE, MD. between 25,000 and 30,000 Morus Multicaulis trees, which are ready for sale.
EDWD. P. ROBERTS.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 33.

BALTIMORE, MD. DECEMBER 12, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: DECEMBER 12, 1837

AGRICULTURAL SOCIETIES.

It is with no ordinary feelings of pleasure we perceive by our exchange papers, that the agricultural communities throughout the country, are becoming sensibly alive to the propriety, nay necessity, of establishing Agricultural Societies.—This feeling augurs well for the interests of husbandry, and should be cherished by every one, however remotely he may be connected with the cultivation of the earth. Farmers and planters form, after all, the great interest upon which all others must mainly rely for individual as well as national welfare; they are indeed the bone, sinew and muscle of the country; for however beneficially the labors of other departments of human life may be exerted, the country would cut but a sorry figure, if the labors of the plough were suspended, or any sudden disaster were to blight the products of the earth. Such being the case, it behoves those engaged in a calling at once so dignified and important, to exert every means within their power, to fulfil the high obligations confided to them. In England prior to the creation of agricultural associations, the condition of agriculture was most lamentably defective, and the earth did not produce more than a moiety of its present yield. The reader is most sensibly impressed with this truth, in reading Mr. Arthur Young's tours, as well as in the writings of the lamented Sir John Sinclair. But we need not go out of our own country to find instances of the kind, as it will be admitted by all intelligent men, that notwithstanding the small number of such societies which now exist in America, their influence has been widely and fortunately felt. Show us the county in which such an institution is located, and is now in healthful action, and we will show you a section of country in which evidences of the improvement of the soil and of stock, increase of product and of profit abound. The very circumstance of meeting together to confer upon subjects connected with the culture of the

earth—to consult upon objects and measures, in which each feels a common interest, tends to bind the whole together by ties of almost fraternal strength, to infuse into each a spirit of enterprise and emulation, which in the race for rivalry never fails to end in the achievement of private and public good. Such assemblages may be compared to meetings upon *neutral ground*, where discussions of the highest moment may be carried on with the utmost advantage to the parties to it; where instead of the introduction of antagonist principles, creating collisions, heart-burnings and dissensions, the communion of brethren upon matters of the profoundest import to all, serve to bind them closer together, and awaken none but the most friendly feelings. Here the opinions and intelligence of states or counties may be concentrated—here the practice of one district is laid open to the inhabitants of another, and here, however well versed a farmer or planter may be in the mysteries of his calling, he may learn something that will prove of advantage to him on his return home; for the wisdom of the world belongs not to any single individual, however gifted he may be.

These being our views, we would respectfully urge upon our agricultural readers throughout the country, in every county where there is not a society already formed, to go to work with a holy zeal, and rest not until they have succeeded in forming one.

LIME—ITS USES—AND QUANTITY.

We are gratified to find by recent publications, that the opinion is becoming prevalent among intelligent farmers, that a much less quantity of lime than was formerly used, is sufficient for all immediate agricultural purposes. The extravagant application of it in England, where from 150 to 640 bushels was for many years the quantity put on the acre, served to lead many astray here, and hence the too free use of it. As we have often stated before, we believe that there is no immediate benefit to be derived from a greater application than 50 bushels to the acre, at any time; that quantity being sufficient to answer all the purposes of melioration for several years: it being competent to give heart and fertility to almost any soil, and with the aid of a *clover-ley* to push it, if originally a thin soil, beyond its primi-

tive state of fertility. If 50 bushels then, will answer, much of the objection against lime on account of its heavy cost is removed, and the ability to use it is increased fifty per cent., and instead of liming *one* acre, the farmer may lime *two*, an object of high import to one of limited means.

Connected with the use of lime, there is one fact which we desire most sincerely to impress upon our readers; it is this,—that it should never be applied without giving it *material* to act upon. Upon all new grounds, upon grass swards, and upon clover leys, it may be most advantageously and profitably applied. If there be a heavy crop of weeds and stubble on the field, there it may also be used to decided advantage; but let it be applied wheresoever it may, it should have something to convert into a condition of vegetable food, as therein, next to neutralizing the acidity of the soil, does its chief virtue exist. If there be no clover-leys, grass-swards, or crops of weeds, to turn in with it, a very happy substitute may be found in a crop of buckwheat, rye, or oats, which as either gets into flower should be turned in with it. Either of these substances will afford full scope to the action of the mineral, and amply remunerate the agriculturist for the time, trouble and expense of providing it. We will venture the assertion, that a field thus treated which would not yield 7 bushels of wheat to the acre, may in three years be made to produce twenty bushels, and if judiciously cropped afterwards, will retain its fertility for ten or fourteen years. If then this desirable state of things can be produced, should any farmer hesitate a moment in availing himself of all his resources, and of even straining a point, to place himself in a position at once so eligible and propitious? We think not. Present and prospective profit, alike combine to urge him to the course we have pointed out; nor should pride of occupation be wanting to stimulate him onward to a goal so worthy of his holiest ambition.

A LARGE CROP OF MANGEL WURTZEL.

During the last summer while on a visit to Mr. George Beltzover's farm, we were very forcibly struck with the fine appearance of a crop of mangel wurtzel, so much so that we were induced a few days since to inquire of him their product, and were highly gratified to learn that they had

yielded 30 tons to the acre, which at 60 lbs. to the bushel is 1000 bushels per acre.

AN EXTRAORDINARY CALF.

There is at present on a farm near Baltimore, a calf which was got by a full bred Durham bull, out of a three-fourths Durham and one-fourth Devon cow, which at 6 days old, weighed 142 lbs., at 61 days old his weight was 322½ lbs., and at 3 months old he weighed 427½ lbs. These respective weights were accurately ascertained in the Western hayscales, and prove incontestibly that the *cross* has by no means impaired or lessened the bulk of this fine animal; indeed we know it to be the opinion of one of the most intelligent breeders in this country, the Hon. Charles A. Barnitz, that for all the purposes of the dairy, one-fourth Devon blood in a milch cow is a great addition to the butteraceous qualities of a milch cow, it being his opinion that this proportion of admixture increases the *richness* of the milk without subtracting in the least from its *quantity*. This fact was most satisfactorily proved by his celebrated Butter-cow, Flora, which when fresh in milk, gave 20 lbs. of butter per week. Flora was sold about 2 years since to Major Frederick Haines, of Marietta, Pa., who was recently offered \$400 for her. She is ¾ths Durham and ¼th Devon, and is besides one of the most perfect models of a cow to be found either in this country or England. Her present owner has a fine heifer calf out of her, which we hope may inherit all the good qualities of her far-famed dam, for surely no one is better entitled than the Major to the possession of first rate animals, as no one has exerted more sagacity or zeal in their obtainment.

But to return to the calf in question: in addition to his immense weight, he is a perfect model of what the genuine Durham should be in all the points that give that noble race character and caste. If the reader should ask who is his breeder, we must answer, sub rosa, that he may be found in the person of "Mine Host" of the Fountain Inn.

We insert in this day's paper a communication from Gen. Wm. H. Harrison, which originally appeared in the *Buckeye-Ploughboy*, and commend its perusal to our readers; it treats upon subjects of importance to all engaged in agriculture, and has the merit of being well expressed. There is one point, however, in which we do not coincide with the writer; it is that in which he expresses the opinion, that in "nineteen-twentieths, of the state of Ohio all that is requisite to keep the land in the condition in which it was found, is to adopt a proper succession of crops; now with all pro-

per deference to the opinion of this distinguished writer, we think that even the fertile lands of this young giant, would be greatly meliorated in quality, by bringing in as an auxiliary to a "proper succession of crops" a moderate dose of lime or some other calcareous substance; at all events, we hold it as being indispensably necessary to all such lands whose fertility may have been impaired.

CROSSES.

We have heard the fear expressed by experienced breeders, that the individuals of the present stock of Short Horn Durham Cattle, are too nearly allied to propagate *all* their peculiar and distinctive qualities to their progeny. The remark was meant and is to be taken, as a general one, applying as well to the stock elsewhere in America, as to that in Kentucky. The foundation of this fear seems to rest in the fact, that the race of cattle now most prized, the *Improved* Durham, being in some sense, a mongrel race of very recent origin, its descendants are so closely connected that they are in danger of degeneracy. It is feared, that the vigor of this race cannot be maintained, because we have not all those other races, by the union or crossing of which, the excellent qualities identifying it, were originally produced. The superiority of this race is owing, not to its possession merely of some peculiar quality in a higher degree than others, but that it unites more points of excellence. There are some breeds which yield more milk, and some which give more flesh; but this gives *almost* as much milk, *almost* as much flesh, presents more flesh where it is most valuable, and less where it is least, fattens more kindly and rapidly, arrives at much earlier maturity, and is of far more docile disposition; and these advantages, render it infinitely the best breed from which to stock our farms. The importance, therefore, of maintaining the purity and vigor of a race, combining so many and so great excellencies, is manifest; and, if the foundation of the fear to which we have alluded, be well laid, our breeders should promptly avail themselves of the adequate remedy against the degeneracy implied. Whether that remedy, if need be for its employment, shall be found in the indigenous breeds of the country, or only by recurrence to the original breeds of England; whence this derived its excellencies and origin, are questions which they must investigate and decide upon for themselves. We do not pretend to offer any opinion on any of the questions involved; nor do we even own that we are impressed with the fears which have brought them up. The subject, however, is worthy of examination by intelligent breeders, and it is but respectful to the opinions of those entertaining these fears, to call attention to it. We invite, therefore, the expression through our columns of opinions held by breeders on the subject, trusting that whatever conclusions are arrived at, may be best calculated to promote this great interest. In the calcareous lands of Kentucky, it is not likely that the business of rearing cattle will ever be superseded by more profitable pursuits. That description of soil is of all others, best adapted to the growth of the grasses, while

no country is more productive of corn. And should it be necessary to resort to the root culture as an additional aid, we can pursue it *ad infinitum*. There is no danger, therefore, that we shall be outstripped by any other state in the great race of improving the breeds and rearing the most and the best cattle. We have great and ample means and abundant resources; and we have only to subject them to intelligent employment, to win a name for rearing fine cattle, as we already have for rearing horses, as widely acknowledged as the fame of the Arabian steed.—*Franklin, Ky. Farm.*

SALE OF IMPROVED SHORT HORNED CATTLE.

The sale of cattle belonging to the Ohio Imp. Co. took place at Chillicothe on the 24th Nov. inst. Through the politeness of W. Marshall Anderson, Esq. Sec. of the Co., we have been favored with the account which will be found below. It will be perceived, that the prices far exceed those of their former sale; and, indeed, any before given in this country. Our readers may rest assured that these purchases are *bona fide*, and not sham, collusive bargains, as some suspicious, incredulous persons declared the first to be.

Name.	Age.	Purchaser.	Residence.	Price.
Acomon.	3 yr. 8 mo.	M. L. Sullivan & Co.	Columbus, O.	\$2,500
Comet Halley.	5 yr.	Geo. Renick & Co.	Chillicothe,	2,500
Hazelwood,	1 yr. 6 mo.	Allen Trimble & R. R. Seymour,	Pickaway co. O.	700
Bounce,	1 yr. 7 mo.	John Walker,	do.	453
Powhatan,	1 yr. 19 d.	Hennas Renick,	do.	500
St. Anna,	3 m. 21 d.	Joseph C. Vance,	Ohio co. Va.	425
<i>Cows.</i>				
Flora,	7 yr. 6 m.	M. L. Sullivan,	Columbus,	1,390
Mauida,	6 yr. 6 m.	Allen Trimble,	Highland Co. O.	1,220
Fidella,	7 m. 18 d.	do	do	610
Elizabeth (& calf)	5 yr.	J. & Wm. Vance,	Champaign co. O.	1,450
Charlotte,	4 yr. 7 m.	Jos. G. White,	Ross co. O.	630
Arabella (& calf)	5 yr. 7 m.	Arthur Watts,	do	1,200
Bush,	2 yr. 9 m.	John H. James,	Champaign co. O.	1,015
Emily,	2 yr. 8 m.	Asahel Renick,	Pickaway co. O.	875
Victoria,	1 yr. 9 m.	M. L. Sullivan,	Columbus, O.	700
Total,				\$16,078

Others, belonging to individuals, were sold at very high prices.

The first annual Fair of the Ohio Agricultural Society was held on the next day, when premiums in silver plate were awarded to the best neat cattle on the ground. To Comet Halley was adjudged the \$50 prize as being the best aged bull; to Acomon, the \$40 prize as the 2d. best aged do.; and to Dr. Watts' Rantipole, the \$30 do. as the 3d best aged do. To the aged cows were likewise awarded \$50, 40 and \$30 prizes, as they ranked 1st, 2d and 3d best.—*ib.*

[From the Buckeye Plough Boy.]

IMPORTANCE OF AGRICULTURAL PAPERS,
propriety of legislative aid being granted to Agricultural Societies, importance of rotation of crops, &c.

NORTH BEND, Oct. 28th, 1837.

Dear Sir:—I duly received the 1st number of the Buckeye Plough Boy which you was good enough to send me. I should have made this acknowledgment sooner, and requested to be placed on your subscription list, but have been prevented by sickness in my family, and pressing calls upon my time by my agricultural operations. I sincerely wish you success in your laudable undertaking to diffuse information upon the important subject to which you have devoted your paper. It is however, true, (and I regret to say it) that many of our farmers appear to be insensible to the advantages of such publications. I believe, however, that an improvement in this particular is gradually going on, and that the benefits which the agricultural interest derive from them will soon be generally felt and acknowledged. In this particular some of our sister States east of the Alleghany ridge are considerably ahead of us, and a correspondent improvement in the management and product of their farms has been the consequence. The agricultural societies established in various parts of the State have done something towards correcting this inequality, particularly in the improvement of the Domestic Animals; and if our Legislature would lend its aid, we might soon be able favorably to compare the character of our husbandry with that of any of the States. The State of New York allows to each of their County Societies a sum equal to what they receive from private contributions. In France the Government bears all the expenses of a Society established in the Capital with ramifications in every part of the Kingdom. It is under the patronage of this Society, established by Napoleon, that the cultivation of the Sugar Beet has been so widely extended to the great benefit of this nation. Ohio has appropriated large sums to the construction of canals and roads for facilitating the transportation of the products of agriculture to market. I can see no reason why they should not do something towards increasing the quantity and improving the quality of those products. Our Agricultural Societies are most of them in a languishing state, and without legislative aid many of them will unquestionably discontinue their operations. Appropriations of this kind are like those which a farmer makes in fertilizing and improving his soil, adding frequently to his income an hundred fold. Thus it is with an expenditure from the Treasury for improving the products of husbandry, the wealth of the people being increased, they will be enabled to return those advances with immense interest whenever the exigencies of the Government may require it. The agricultural products of Ohio are indeed very considerable, but this is due more to the bounty of Providence in having furnished us with so fertile a soil, than to the character of our tillage. Many of our farmers seem indeed not aware of the extraordinary results to be produced by a judicious course of tillage, and how soon a naturally poor soil may be eminently productive, whilst one naturally rich, may be brought

down in its yield to the standard of the poorest, by bad management. In England innumerable instances of the former constantly occur, and the process by which it is affected being disseminated through the country by means of the Agricultural Societies, and the periodical publications supported by them, the number of such instances are constantly increasing, whilst with us the eye of the traveller often lights upon fields whose products are diminished fifty per cent. from what they yielded when first cleared, by injudicious management. A single instance of what I have said in relation to England may suffice. The County of Norfolk has, perhaps, more poor land than any other in that Kingdom, and it is not only poor, but sandy. In a district of this kind, Mr. Coke, celebrated for his constant support of the liberties of the people in Parliament, as for his knowledge of Agriculture, purchased a large tract of land. When it first came into his hands he says that there were scarcely any living animals upon it but Rabbits, and they were in a starving condition. An American citizen who has lately visited his seat, says, that he had last year between six and seven hundred acres in Wheat and Barley, and that the product of his fields was oftener forty bushels to the acre than under that quantity. Although various means were adopted by the sagacious mind of Mr. Coke to effect the result, the bases upon which it rested was the cultivation of turnips. Upon such a soil, grass at first was out of the question, but by much labor in the cultivation turnips might be raised and sheep be sustained by turnips. So the turnips fed the sheep and the sheep fed the land, and in a short time the land was strong enough to bring both grass and grain. By a judicious management of these the land was still further improved until it reached the perfection above stated. But in nineteen-twentieths of our fine State all that is requisite is to keep the land in the condition in which we found it, and to do that, all that is necessary is to adopt a proper succession of crops. This alone will do, without the trouble and expense of manuring. All of our practical farmers know very well that the continued growth of the same kind of grain upon the same field will, in time, greatly impoverish it, and lessen the product; but that by altering the various kinds of grain good crops may be obtained for many successive years. Still the land will be deteriorated unless recourse be had to manure or some vegetable which will give to the land more than it takes from it. There are various articles which have been employed for that purpose, but perhaps, the best of them all is the red clover. This grass has proved one of the greatest blessings to the agriculturists both of America and Europe. With the aid of this grass many farms in the Atlantic States have been brought from actual barrenness to become very productive. To accomplish this, however, plaster, lime, vegetable, or animal manure are necessary. The Ohio farmer however wants none of these, at least none are necessary to keep up the natural fertility of his land. A crop of clover succeeding three successive grain crops, and remaining two years, will effectually answer the purpose, and the farmer who follows this course will deliver his land to his successor, after a forty or fifty years' use of it, in better condition than when he received it. Every good

farmer knows this, but unfortunately many understand the theory who do not carry it into practice. Many too, suppose that if they change the crop from corn to small grain of some kind or other, that they may then go back again to corn without injuring the land. This is a mistake. The best of land will be injured in time by this process. The fact that a change of crops was necessary to produce a good yield has long been known, but the reason of its being so was never guessed at until the discovery of it lately by a French Chemist. By a series of ingenious experiments this gentleman discovered that most vegetables (the farinaceous grains more particularly) not only receive nourishment from the earth through the agency of the vessels of their roots, but that they also by the same or a different set of vessels made a deposit of a substance in the earth which remained there until taken up by the roots of other plants. This substance being convertible into food for a different vegetable but not for that by which the deposit was made. This satisfactorily explains the reason why a good crop, (of wheat for instance) cannot be raised for a succession of years from the same field. If the land is remarkably strong two and even three good crops may be raised, the plants in this instance finding sufficient nourishment from the natural strength of the ground. But it (the ground) from the yearly deposit becomes at length so completely saturated with it as no longer to afford the required nourishment, and the plants of consequence are weak, sickly, and unproductive. Seed of another kind, however, committed to this same field will reward the sower with an abundant crop, and after the lapse of a few years it will be again ready to receive another crop of wheat, the intermediate crops having exhausted the wheat deposit and left others peculiar to themselves, which being taken up by the roots of the latter plants, are elaborated in their vessels and formed into a suitable and wholesome nourishment. As I have remarked, however, although the white grain crops (corn, wheat, oats, &c.) may succeed each other for some years without greatly injuring land that is naturally of good quality, still it will be ultimately impoverished, unless some other crop is occasionally intervened, of a character altogether different. These grains, although essentially different in their qualities, and manner of growth, are still of the same class, and there must of course be a considerable coincident in the character of the support which they draw from the earth, and the manner in which it is converted into the farinaceous substance which is the common and essential part of the perfected grain in all of them. The plant of all others which seems best calculated to exhaust deleterious deposits left in the earth by the grain crops, and to form a fresh supply of food for them by the mysterious operations of its roots and vessels, is red clover. To make the most of this plant as a renovator of the soil, it should be (as is the practice with good farmers) ploughed in after it has attained its full maturity. In this way it furnishes a large mass of vegetable manure which greatly contributes to the fertility of the soil. But if this were all the good it does, it would do no more than ploughing in any other equally succulent plant. I contend, however, that it imparts to the soil, a degree of fertility which cannot be

accounted for from the rotting of its stalks, leaves and roots after they are ploughed in, and that the mere *growing* of the article upon the ground adds greatly to its fertility. I do not know that any experiments have been made to ascertain the quantity of deposit made by clover, as was the case in relation to the farinaceous grains by the French Chemist above referred to, but I am certain that any very careful observer of the effect of Clover in improving the soil, will come to the same conclusion that I have, which is, that it possesses a fertilizing quality which is totally independent of that which is given by the decay of its roots, stalks, and leaves. The best farmers, as I have said, plough in the clover when it is at maturity, or at least when it has attained a considerable part of its growth, but the greater part feed it down to the ground before it is ploughed, leaving nothing to be converted into manure for the support of the crop about to be sown, but the roots. Now the decay of these roots in the ground could not alone produce the great fertility which a two years growth of clover is known to give. Three years ago I sowed a field with clover upon wheat, in February. It was remarkably fine being half leg high in September. It was fed down, and in the succeeding winter it was entirely killed by the frost. In the spring the field was ploughed up for corn. The roots of the clover were dry and withered, and would of themselves, have given little or no assistance to the crop; but yet it was fine and the land had evidently been improved by the clover. It is fortunate that the theory which has been established in relation to the farinaceous grains, is true also, as to many of the noxious plants, and those most troublesome to the agriculturists; such as the common Dock, the Thistle, the Dog-Fennel, and the Thorn Apple, or Jamestown Weed. Some years ago a friend of mine who was very desirous to rid his farm of the first mentioned plant, told me that he had cut up all the dock in the greater part of one of his meadows, leaving only a small part where it was so thick that there was no grass on it. To his astonishment, he found the next year that in this last mentioned spot all the dock was dead, whereas a good deal of that which he had cut up, and, as he supposed, had extirpated, vegetated afresh. I was unable to account for it at that time, but the difficulty now appears to be of very easy solution. The spot where the dock was thickest, had no doubt been growing there for some years, until the ground had become so saturated with its deposit that it could no longer find nourishment to support it, and therefore died. Ten years ago, the Thistle, that "Votress of the Gales," as Darwin calls it, was unknown in this part of the country. But it soon came to us in clouds "borne on broad wings," and created the apprehension that it would take entire possession of our pastures and meadows. I began to make war upon it as my friend did upon the dock, but I found it lasted but a short time, always disappearing after the second year from the spot where it had been previously thickest although the ground was covered with its seeds.

I could add many more facts to confirm the theory I have supported, but have already written enough to tire your patience.

Accept my best wishes, and believe me with great respect your humble servant,

W. H. HARRISON.

DR. R. FRY.

(From the Albany Cultivator.)

DIRECTIONS FOR MAKING BUTTER.

MR. J. BUEL,--*Dear Sir:* According to promise, I send you the following directions for making butter; they are strictly in accordance with the method practised by my own family, and in which we have been successful in suiting the market for a great number of years. You are at liberty to use them as you may think proper.

I am, dear sir, respectfully yours,

JAS. SMEALLE.

The milk of the cow is a nourishing and grateful food to man. Among the various uses to which it is put for this important purpose, none are more deserving of consideration than that well known delicious substance called butter. Butter is an almost indispensable necessary of life; it is used by all classes of people; it forms an essential part of nearly every repast, and if the quality is good, there are few indeed who do not highly relish it. But it will be readily admitted, that the qualities of butter differ extremely; some are very fine, while others are unfit for the purposes of the table. Yet both the good and bad are produced from milk possessing exactly the same properties. Milk is composed of a peculiar oil, (or butter) curd and whey, which can be easily separated. The same proportion of these ingredients may not exist in the milk of every cow, but the combination is the same in all. The following position will therefore hold good, viz: If good butter may be made from milk, and all milk possesses the same properties, then all milk (of healthy cows is intended) is susceptible of producing good butter. It is admitted that the food of which the cows partake, for the time being, will more or less affect the butter. Winter and summer make, for example, are very different, but both may be good of their kind,--difference in quality arising from the cause, therefore, will not affect the principle laid down. It is evident that it is not to the milk, but to the management of it, that we must look for the cause of that diversity of quality existing in butter.

When milk stands to rest for sometime, cream collects upon its surface, which it will continue to do if kept in a proper state, until very little is left in the milk; but under certain circumstances it becomes sour and coagulated, after which the cream ceases to gather. It is generally admitted that the greatest quantity of butter is obtained by churning the whole of the milk. If this course is to be pursued, churning ought to be done as soon as possible after the milk has thickened. But the general practice is to churn the cream only, in which case means must be used to keep the milk sweet, in order that the greatest quantity possible of cream may be obtained. The milking pails, milk pans, &c., must be regularly cleansed, and scalded before being used. Let this extend to the whole apparatus of the dairy.

Zinc or tin milk pans should be used, they being most cooling and easily kept sweet. The milk room must be well ventilated, and all cool

as possible. In very warm weather it will be of advantage to place the milk pans upon the floor.

Cream is composed of the same ingredients with milk, but in different proportions. It must be skimmed off as soon as it has ceased collecting, and churned as soon as possible after it has thickened. If it is permitted to stand for a length of time before churning, the component parts will separate spontaneously, and in churning numerous particles of the curd will become blended with the butter, and can never afterwards be separated. The butter will appear spotted, it will have a sour taste, and will very soon become rancid. Cream is extremely liable to become tainted by any offensive smell with which it may come in contact. Butter will frequently have a flavor of cheese, onions, &c., merely from such articles having been placed near the milk during the time of creaming, hence the necessity of keeping the milk room sweet and clean. Care must be taken not to make the churning too warm; every one conversant with the business, knows the inferiority of what is termed scalded butter; it is much more safe to churn too cold than too hot. Hot water should never be used for the purpose of warming the churning. Its coming suddenly in contact with portions of the cream causes it to curdle, and produces those evils already mentioned, when separation of the parts takes place. When the churning requires warming, the better way is to fill a tin pail or milk pan with the milk or cream, set it in hot water, stirring it while warming; this can be repeated till the whole is brought to the proper temperature.

We have said that several ingredients of which milk is composed can be easily separated. Although this be the case, it requires time and labor to obtain either in a perfectly pure state. Butter, as taken from the churn will contain a considerable portion of the other matters, and on the proper separation of these, the quality of the butter in a great measure depends. If the business has been rightly conducted, they will be in a liquid state, viz. of sour milk, and may be almost entirely removed. Many commence the operation of working the butter by washing it in cold water; the practice, although much followed, is not a good one; it injures the color, and detracts, in a considerable degree, from that delicious nutty sweetness, which fine butter possesses. This may appear novel to some, but it is not new to many of our best butter makers. Let any one try the experiment, by treating parts of the same churning, the one by washing, and the other according to the direction here given; it is easily done, and will remove every doubt.

Raise the vessel containing the new made butter a little on one side, to allow the milk to run off; commence working it with the ladle by bruising it down, turning it over, &c., pouring off the milk from time to time as it collects. Continue until the milk ceases coming off; add the proper quantity of fine salt, mixing it well with the butter, and set it in a cool place until the following day, when it must be again thoroughly worked. The salt will have dissolved in the butter, and part of the pickle will work out, taking with it nearly all that remains of the foreign matters. Continue working until the pickle comes off clear, and the butter a tough solid mass. The excellent preservation of the butter depends much on

this part of the business being properly performed, and to its mismanagement may justly be attributed a large proportion of that of inferior quality. As part of the salt will have been lost by working, the proper quantity must now be added, with about half a teaspoonful of saltpetre, well pulverized, to ten pounds of butter, mixing the whole properly. Here a caution may be proper, viz: having obtained good butter, don't spoil it with salt, as is too often done. A medium is best, not so little as to make it insipid, nor so much as to destroy the flavor, and make the taste disagreeable.

In packing butter, the vessel to receive it, if made of wood, should be seasoned for at least a week previous to using it, by filling it frequently with buttermilk; it must likewise be properly cleansed and scalded. The butter should be put down as soon as the working is finished, while it is yet soft and pliable, pressing it together in such a manner as to leave no vacancies between the different churnings. If the butter is intended to be kept for a length of time, the following treatment will answer the double purpose of excluding the air, and supplying a proper pickle, which are both necessary. Cover the butter neatly with a linen or cotton cloth, over which lay a quantity of fine salt, add from half a pint to a pint of pure water—repeat either or both when necessary. Set it in a cool dry cellar. Follow the above directions and the butter will keep well, and be of excellent quality.

[NOTE.—We have seen and tasted both the cheese and butter of Mr. Smealle, made according to the directions, we understand, given above and in a former number of the Cultivator, and we do not hesitate to pronounce both of the first quality.—*Cond. Cultivator.*

[From the Cleveland Herald.]

INDIAN SUMMER—AMERICAN FORESTS, *And the influence of our Great Lakes on our Autumn Sunsets.*

The beauty, blandness, and the mingled glories of a western Indian Summer, belong alike to earth and sky. In the valley of the great Lakes they are blent with a mellow richness and loveliness unknown in other climes. The spirits of beauty can worship in no temple more resplendent than the arched heavens lit up by an Autumn sunset, and burnished with flashes and crimsoned colorings, deepened by the many tinted foliage of the primeval woods, mirrored and reflected from waters broad and bright as the Mediterranean of the old world. The forests—pen nor pencil can do justice to the spectacle nature presents, when the frost of a night has changed the lingering green of Summer. "It is as if a myriad of rainbows were laced through the tree tops—as if the sunsets of a summer—gold, purple and crimson—had been fused in the alembick of the west, and poured back in a new deluge of light and color over the wilderness. It is as if every leaf in those countless trees had been painted to outflush the tulip—as if, by some electric miracle, the dyes of the earth's heart had struck upward, and her chrystals and ores, her sapphires, hyacinths and rubies, had let forth their imprisoned colors, to mount through the roots of the forest, and, like the angels that in olden time, entered the bodies

of the dying, re-animate the perishing leaves, and revel an hour in their bravery."

A writer in a late number of the Oasis advances the plausible theory that the chain of Lakes lying in a great circle from south of west to north, add much to the splendor of our Autumn sunsets.—Rays of light falling on a reflecting surface, slide off, so to speak, in a corresponding angle of elevation or depression, whatever it may be. The writer considers the great American lakes as vast mirrors spreading horizontally upon the earth, reflecting the rays of the sun that fall upon them according to the optical laws that govern this phenomenon. The higher the sun is above the horizon, the less distance the reflecting rays would have to pass through the atmosphere, and of course, the less would be the effect produced; while at or near the time of setting the direct rays striking nearly horizontally upon the waters, the direction of the reflecting rays must be so also, and therefore pass over or through the greatest possible amount of atmosphere previous to their final dispersion. Objects on the earth's surface, if near the reflecting body, require but little elevation to impress their irregularities on the reflected light. Any considerable eminences on the eastern shores of the great lakes would produce the effect of lessening or totally intercepting these rays at the moment the sun was in a position nearly or quite horizontal. The reflective power of a surface of water is much greater than that of earth, which accounts for the admitted superior beauty and brilliancy of Autumnal sunsets in the northern, over the most gorgeous in the southern States.

The views of this writer may be novel, yet his hints are worthy the attention of the curious.—The succession of most resplendent sunsets for the past several weeks, when not destroyed by atmospheric derangement attending storms—the effulgence which continues to curtain the chambers of the day-king—with the frequent auroral ministers that attend his exit in this latitude, leads the beholder to marvel, and reverence and worship the Power that spreads and gilds the bannery tent—displaying a handy-work man can only admire and enjoy, not imitate.

The theory of this writer accounts for the successive flushes of golden and scarlet light so often observed to rise and blend and deepen in the west as the sun approaches the horizon, and sinks below it, by the supposition that each lake, one after the other lends its reflecting light to the visible portion of the atmosphere, and thus as one fades, another flings its mass of radiance across the heavens, and acting on a medium prepared for its reception, prolongs the splendid phenomena. He says:

"We have for years noticed these appearances, and marked the fact, that in the early part of September, the sunsets are of unusual brilliancy, and more prolonged, than at other times. They are at this season, immediately after the sun goes down, accompanied by pencils or streamers of the richest light, which, diverging from the position of the sun, appear above the horizon, and are sometimes so well defined that they can be distinctly traced to the zenith. At other seasons of the year, clouds just below the horizon at sunset produce a somewhat similar result in the forma-

tion of brushes of light; and elevated ranges of mountains by intercepting and dividing the rays, whether direct or reflected, effect the same appearances: but in this case there are no elevated mountains, and on the finest of these evenings the sky is perfectly cloudless. The uniformity of these pencils at the same season for a great number of years, prove the permanency of their cause, and lead us to trace their origin to the peculiar configuration of the country bordering on the great lakes.

"At the time of the year these streamers are the most distinct, a line drawn from this point, (Oswego) to the sun would pass over a small part of the west end of lake Ontario, the greatest diameter of Lake Huron, and across a considerable portion of Lake Superior. From considerations connected with the figure of the earth, and the relative position of the sun and the lakes, with the hills that border lake Huron on the east, it appears clear to us, that the broken line of these hills act the part of clouds or mountains in other circumstances in intercepting and dividing into pencils the broad mass of light reflected from the Huron, and thus creating those splendid streamers, that with us, as it were, the commencement of autumn is marked. As the sun still advances to the south, the pencils formed by the highlands are lost to us, but in their place come two broad ones, caused by the feeble reflective powers of the isthmuses that separate St. Clair from the Huron, and the former from Lake Erie. This occurs not far from the middle of September, when the sun sets a few degrees north of west, and can be observed for nearly a month. These interruptions of the brilliance of the west are not however of the duration of those effected by the hills, as the sun has scarcely time to leave the surface of Huron before these pencils and breaks are all abruptly melted into the rich dark crimson that floats up from the Michigan, or the mighty Superior.

"After the southern declination of the sun has become such that the Huron range of hills to the northward of the range of light reflected to us, these pencils disappear from the heavens, apparently, and do not return, until, with another season, and a renewed atmosphere, the sun is found in the same position. The reason of this is, the whole of the Michigan peninsula is so level that it does not break the reflected light from that lake; and the broader ones made by breaks in the chain of lakes from Erie to Huron, are not of a nature to be so distinctly marked, as those produced by the interception of rays by hills or clouds.

"We have thrown out those hints—for we consider them nothing more—in the hope of directing the notice of other and more competent observers to the facts stated, and if possible, thereby gaining a satisfactory explanation of the splendid phenomena connected with our autumnal sunsets, should the above not be considered as such."

TOWN AND COUNTRY.

How do you like the country? said a lady to a little boy from the city, who was visiting some relatives in the country. I like it very much, said the lad, because here we get cow's milk, but at home we only get milkman's milk.

Will ground Limestone answer as well as burnt or Quick Lime?—This question was put to us the other day by one engaged in the manufacture of lime, who states, that if it will answer as well for agricultural purposes, it can be supplied to an indefinite amount at a cheap rate. We cannot answer the question from any experience of our own, having never used it, or seen it used. There have been some few experiments of the kind in distant places with favourable results; but we presume the practice of using it has never become sufficiently extensive or general to warrant any safe conclusions either way in regard to it. Judging from analogy, however, we should say that it will do as well as the other in the long run, if not better. What is ground limestone? Simply carbonate of lime in a pulverized state.—Now Calcareous Marl, which is so efficacious in restoring fertility to exhausted soils, owes much of its efficacy to this very material. Soils in a limestone district oftentimes contain an abundance of this article and are rendered fertile by it. According to Ruffian, one cause of the fertilizing powers of lime is its combination with humic acid, or some other acids in the soil, and neutralizing them. It would not be so effectual in decomposing some substances, such as vegetable and animal matters, as the quick lime; but as an improver both of the texture and qualities of the soil, it will undoubtedly answer as well as any other preparation of lime. We hope that it may be tried freely, and the results noted.—*Maine Farmer.*

SENTIMENTS.

A wise government will not be slow in fostering the agricultural interest.

Let every farmer who has a son to educate, remember and believe that science lays the foundation of every thing valuable in agriculture.

Science must combine with practice to make a good farmer.

To make leeches bite.—This is an important object and one we perceive with pleasure to have been effected by a Dr. Elden. Small holes are cut in a piece of blotting paper corresponding to the places on the skin to which it is desired the leeches shall be attached. This being moistened and applied, the leeches crawl about until they come to the holes in the paper, when they immediately take hold.

Tooth-Ache.—The following is said to be a cure—an infallible one, some persons think:—"To a table-spoonfull of any kind of spirits, add the same quantity of sharp vinegar, and a teaspoonfull of common table salt. Mix them well together; hold the liquid in the mouth so that it can enter the cavity or hollow in the tooth. It will give almost instantaneous relief without any increase of pain."

MISSISSIPPI CROPS.—A letter from Paulding, Mississippi, says, "Crops of corn are very abundant with us, and cotton very good—though this region has a sufficiency of open land yet to cultivate that article as extensively as other parts of the State. We have had health the past season, almost equal to the Virginia Mountains."

THE PLOUGH.

A SONG,

Written by B. Brown, Esq., of Boston, for the Anniversary of the "Plymouth County Agricultural Society," and sung on that occasion, at Bridgewater, October 11, 1837.

When Adam with his blooming rib,
By the behest of Heaven,
From Paradise, his native home,
All sorrowing was driven,
The curse primeval, thought so hard,
A blessing was I trow,
That she should nurse her little babes,
While he should guide the Plough,
That she should nurse her little babes,
While he should guide the Plough.

So, our great ancestor became
A Farmer of the soil,
And millions of his children too
Are sharers in the toil.
We clear and beautify the fields;
We drain the miry slough;
We wield the sickle and the flail,
And guide the sturdy Plough.

Of all the stations on the earth,
The Farmer ranks the first,
Though some may reckon him debased
For toiling in the dust.
'Tis Nature's calling he pursues,
As with a sweaty brow,
He turns the sod all upside down,
And guides the sturdy Plough.

When Spring in all its merriment
Overspreads the fields with green,
And nought, save notes of joy, is heard,
And nought but smiles are seen.
The Farmer turns his tillage lands,—
And who's so happy now,
As while he whistles to his team,
And guides the shining Plough.

Domestic joys full well he knows,
And, it may hap, a care;
For none must think to be exempt
From common lot and share;
His wife, she deems it her concern
To milk her bonny cow,
And cheer her ruddy husband, as
He guides the sturdy Plough.

For love of wealth some get ensnared
In speculation's toils,
And others, when disasters come,
Are scrambling for the spoils;
Still does the prudent Farmer pay
To industry his vow,
Nor heeds the struggle nor the strife;
But steady guides the Plough.

Good rule and order he maintains;
He lives in peace with all;
And, to defend his country's rights,
He's ready for the call.
Now, to be ever thus content,
Say, wights, would ye know how?
'Tis but to mind your own affairs,
And steady guide the Plough.

There are two dogs in Montgomery co., N. C. of whom this fact is related. They had been hunting together after deers, for several years; at length the elder got his hind leg caught in a steel trap in the river, which caused him to lose it just below the hock joint. This did not however prevent him from running after it healed. But his young friend and pupil from that time forth, ran upon three legs—holding up the hind leg corresponding with the injured leg of his companion. For the truth, we vouch Dr. Montgomery, John C. Atkins and a half dozen highly respectable gentlemen about Lawrenceville.

BEEES.

A CONFLICT BETWEEN QUEENS, AND A TRAGEDY BETWEEN A QUEEN AND SEVERAL OF HER SUBJECTS.

(A copy of part of a letter written to Gen. Francis Willoby, Groton, N. Y., by a friend.)

I was for a while rather staggered with the doctrine "that both queens never fall in a conflict." I could not see why it might not be fatal to both as it may be to the duellists. But infinite wisdom has contrived this. I have seen this wonderful *fete* by taking two queens and placing them in a glass cylinder, so that I could observe every motion; and in all cases (which are many) the conflict is the same in all its features; when they have clinched. Although the struggle is much longer in its duration with different queens, yet but one weapon is ever used, and but one manner of using it. Sometimes I have known hostilities to commence instantly when put together, and at other times there seemed to be a kind of shyness like two men who would be glad to avoid a duel if their honor would not suffer, (mistaken beings) and remain for some time looking at each other, in a sort of reflection, before the deadly conflict. I have known them to clinch for a moment, and then let go, and take their positions at the two opposite sides of the cylinder, both of which motions, clinching and letting go of each other, is quick as sight. The reason of this instantaneous work is obvious, when we view the wisdom of God in forming their nature and habits—which must be altogether instinctive—for otherwise a colony which had lost their queen, and the larvæ had all passed beyond their reach, so that they could not change their nature to a queen, then the bees (if they possessed rational faculties) would borrow a larvæ of another colony, and repair their loss. This may be done by human invention. But to the conflict. When the two conflicting queens have once grappled and made their hold firm and strong, this hold is never broken until the sharpness of death has dislocated one of them, by unnerving her of every bodily and mental feeling. This also is instantaneous. The queens, while in the conflict, are hugged, breast to breast, lying flat on their sides, with their legs and arms firmly fixed around upon the back of each other, thus bringing their breasts and bodies as close to each other as possible, one lying on her right side, the other on her left. So you see that the abdomen of each of the queens, must likewise be close to and fronting each other. Now comes the struggle, which is tremendous; they have not power to curve their abdomen back nor sideways very much, neither would they do it if they could, for it would only give her competitor the advantage, should she do either. Thus you will see that the whole victory depends entirely on the one which is able to curve her abdomen first, for in doing it she enters her sting in the lower region of the chest of her antagonist, and she is dead in an instant, and the two bees are apart in the next. I could never discover the least motion in the conquered queen, except a slight trembling of the limbs. But what surprised me most in performing one of these fetes, was the affluvia which seems to have escaped from the bodies of the queens during their conflict, which was very warmly contested for several minutes; the glass was so

filled with vapor that the conqueror could not be distinctly seen, except when she was at the bottom of the cylinder.

I think you will be interested in a description of another experiment which I recently tried. It is this :

I took a queen, put her under a glass tumbler on the table. I then caught a common worker, and put into the same tumbler with the queen.—My interest was much excited on observing the manœuvres of the queen. Although the queen manifested ardent signs of hostility, and would repeatedly alight on the common worker, yet the common worker was perfectly subordinate, and would yield to any position her majesty see fit to place her in, without the least resistance ; and although the queen curved her abdomen repeatedly and seemed to sting the worker, yet the worker was unhurt. At last the queen assumed the position of the conflict of queens by lying on her side, and by her bodily strength, rolled up the common worker upon its side, (for the common worker seemed to yield perfect obedience,) so as to bring it in the right position of a competitor queen ;—then she curved her abdomen, which produced instant death in the worker. Now as I was not perfectly satisfied with the experiment. I took a worker from the same family of her highness ; on introducing this bee to the queen, there seemed to be no signs of hostility by either the queen or the worker, but contrariwise. For a few moments the queen seemed to manifest kindness and sociability ; but after all, in a few minutes, I noticed a kind of arbitrary power in the queen, which she began to exercise, by trampling on the worker, the worker at the same time manifesting the most profound reverence and subordination, by lying clear down for her royal highness to trample upon, and pass over her. At last the queen became so enraged, that the poor worker had to suffer death precisely as the former one did, without the least resistance whatever. Now I am of the opinion, could the queen have communicated to the understanding of these two working bees, the precise position she would have them take, they would have done it, and received the wound inflicted by the deadly weapon of their sovereign without the least resistance.

J. M. WEEKS.

Salisbury, Vt. Sept. 1837.

[Vermont Free Press.

CHURNING.—There is sometimes considerable difficulty in making butter from cream, owing perhaps to causes not exactly understood ; and every dairy-woman knows that cases occur in which the manufacture of a good article is impracticable. A friend assures us that in ordinary cases, the difficulty is at once removed, and butter of a good quality procured, by the addition of a little salaratus to the cream. We have since tried it when cream proved refractory and found it to succeed admirably. A spoonful of salaratus, pulverized, is a sufficient dose for two gallons of cream. After the cream has been churned a proper time, if no signs of butter appear, sprinkle the powdered salaratus over the surface, half at a time, as it is possible no more than half may be required. After churning a few minutes longer, if necessary,

add the remainder. The philosophy of the matter, we take to be this : the alkali of the salaratus naturalizes the superabundant acid of the cream, and thus produces butter.—*Gen. Far.*

LARGE YIELD.—Our friend Jacob Smith, of Brandywine Hundred, informs us that he has in his possession an ear of corn which has 18 rows, and 54 grains, amounting to 982 grains. It is the growth of this season, and was raised on his farm. If any can produce a larger, let them bring it on ; if not Delaware must still take the lead.

[Del. Gazette.

TRY THE NEW ESTABLISHMENT. NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and de-patch. Also, Cline's combined Plough.

J. T. DURDING.

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MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,
CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch ; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz ,

11 inch Boxes,	\$30,	extra Knives for do. per sett	\$4,
14 " "	" 45,	" " "	5,
420 " "	" 75,	" " "	8,

CORN S ELLERS—hand machines \$20, horse do. 0. 1500 PLOUGHS, of various sizes and patterns among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS ; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each.

CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each.
DRILL and SOWING MACHINES at 6,20 a \$100 each.
FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox YOKES and BOWS, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the

retirement of their late learned and venerated principal has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.
Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,

JOSEPH H. JONES, President.

RICHARD J. BOWIE, Sec'y.

Rockville, Montgomery county, Md. Oct. 20, 1837.

ROBERT SINCLAIR'S NURSERY,

AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, loosely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

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ROBERT SINCLAIR, senr.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & CO.,
Light, near Pratt-street, Balt.

CONTENTS OF THIS NUMBER.

Advantages of agricultural societies—lime, its uses and quantity per acre—a large crop of mangel wurtzel—an extraordinary calf—notice of Gen. Harrison's communication—advantages of crosses—sale of improved Durhams—Gen. Harrison's letter on the importance of agricultural papers, propriety of legislative aid to agricultural societies, and the importance of rotation of crops, &c.—directions for making butter—Indian summer and beauty of American forests—advantage of country life—ground limestone as a manure—importance of science to a farmer—plan of making leeches bite—cure for the tooth-ache—Mississippi crops—ploughman's song—anecdote of dogs—conflict between queen bees—churning—a large ear of corn—prices current—advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	
CATTLE, on the hoof,	100lbs	6 00	7 00
CORN, yellow	bushel	76	78
White	"	75	78
COTTON, Virginia,	pound	11	
North Carolina,	"		
Upland,	"	10	2
Louisiana — Alabama	"		
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's	"		
SuperHow. st. from stores	"	9 25	9 50
" " wagon price,	"	9 00	
City Mills, super.	"	9 25	9 50
" extra	"	9 75	
Susquehanna,	"		
Rye,	"	6 50	
Kiln-dried Meal, in hhds.	hhd.	23 50	24 00
do. in bbls.	bbl.	5 00	5 25
GRASS SEEDS, wholes. red Clover,	bushel.	5 50	6 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north) ..	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"		3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	6 25	6 50
Slaughtered,	"		
HOPS—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LINE,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	38
PEAS, red eye,	bushel.		
Black eye,	"	75	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,	barrel.	1 62	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	90	
Susquehanna,	"		none
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
" for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"		
" ground leaf,	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	2 00	2 10
Red, best	"	1 85	1 95
Maryland inferior	"	1 63	1 85
WHISKEY, 1st pf. in bbls.	gallon.	43	44
" in hhds.	"	42	42½
" wagon price,	"	bbls	39
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	
To Wheeling,	"	1 75	
WOOL, Prime & Saxon Fleeces, ...	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do.	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore, Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	13	13
Shoulders, do.	"	10½	10½
Middlings, do.	"	do	do½
Assorted, country,	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"		
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
COWS, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 37	
CHOP RYE,	"	1 75	
Eggs,	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,	"	4 75	
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virgi. 1½a1½
Branch at Baltimore, do		Bank of Virginia, do
Other Branches, do		Branch at Fredericksburg, do
MARYLAND.		Petersburg,
Banks in Baltimore, par		Norfolk,
Hagerstown,	¾a	Winchester,
Frederick,	do	Lynchburg,
Westminster,	do	Danville,
Farmers' Bank of Mary'd, do		Bank of the Valley, ..
Do. payable at Easton, ... 1		Branch at Romney, ... do
Salisbury, 2 per ct. dis.		Do. Charlestown, do
Cumberland,	3	Do. Leesburg, 1½
Millington,	do	Wheeling Banks, ¾a3½
DISTRICT.		Ohio Banks, generally 6a7
Washington, } Banks, ¼p.c.		New Jersey Banks gen. 5
Georgetown, } Banks, ¼p.c.		New York City, ½
Alexandria, } Banks, ¼p.c.		New York State, ¾a4
PENNSYLVANIA.		Massachusetts, ¾a3½
Philadelphia,	¾a	Connecticut, ¾a3½
Chambersburg,	1	New Hampshire, ¾a3½
Gettysburg,	do	Maine,
Pittsburg,	¾a	Rhode Island, ¾a3½
York,	1	North Carolina, 5
Other Pennsylvania Bks. 4		South Carolina, 8a10
Delaware [under \$5] 6		Do. [over \$5] 2
Do. [over \$5] 2		Georgia,
Michigan Banks,	10	New Orleans,
Canadian do.	10	

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleyville, Halifax Co. N. Carolina.

SYDNEY WELLER.

Nov. 9, 1837—21

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A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
a 29 EDWD. P. ROBERTS, Baltimore, Md.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Threshing Machines, with or without horse power
Superior Grain Cradles
F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes
A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes
Swingle Trees and Hames
Hay Forks and Rakes
Also, a great variety of Manure Forks, Shovels, &c.
Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on English Corn Hoes
Ploughs and Machinery done at short notice
Superior American made Cast-steel Hoes, with handles
Liberal discount made to those who purchase to sell again.
Wheat FANS, of various sizes
Mattocks, Picks and Grubbing Hoes
Corn Shellers

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

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J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardiness, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

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The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 34.

BALTIMORE, MD. DECEMBER 19, 1837.

Vol. IV.

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time. All letters to be post paid.

TUESDAY, BALTIMORE: DECEMBER 19, 1837

THE MORUS MULTICAULIS AND MORUS ALBA COMPARED.

A correspondent asks us this question :

What are the advantages, if any, of the variety
of mulberry known as the *Morus Multicaulis*,
over the White Italian mulberry ?

OUR ANSWER IS THIS :

The *Morus Multicaulis* is not a variety, but a
distinct species. The *White Italian Mulberry*
requires four years growth before it can be safely
fed from ; six years before remunerating profits
can be obtained from its foliage ; and twenty be-
fore it can be said to have attained its full
growth.

The *Morus Multicaulis* tree can be fed from
the first season without injury ; the second season
it will yield nearly as much foliage as at any sub-
sequent period. It may be multiplied from cut-
tings to an almost incalculable extent ; every
piece of wood with a single bud, being compe-
tent to make a shrub from four to six feet high
the first year ; whereas, the *White Italian mul-
berry* requires, as we have before stated, four
years before it can be fed from, and even then, to
nothing like the extent of the former.

The leaves of the *Morus Multicaulis*, are 3 or
10 times as large as those of the *White Italian mul-
berry* ; equally as nutritious, and are eaten with e-
qual, if not more avidity by the worms, will make
silk fully as lustrous and elastic as those of the
White Italian ; and from the great size of the leaves
of the former, it reduces the labor of gathering and
feeding, 70, 80 or 90 per cent. ; but for the sake of
accuracy, we will say, 50 per cent. This fact
will appear obvious to our correspondent, when
we state a few others by way of illustration.

An acre in *Morus Multicaulis*, two years old,
will yield by one-half more foliage than the same
quantity of ground in *Morus Alba*, or *White
Italian mulberry*, six years old : when a leaf of
the former is gathered, food is provided for 9 or

10 worms, whereas a leaf of the latter, only suf-
fices one worm : there is no more trouble in ga-
thering the large leaves of the *Morus Multicaulis*
than there is in those of the *Morus Alba* : the labor
of feeding is the same, with this difference, that
in feeding with one of its leaves, you accomo-
date nine times the number ; in the leaf of the *Mo-
rus Multicaulis* there are but few stems, and scarce-
ly any that are not eatable by the worm : in that of
the *Morus Alba*, the stems and uneatable fibre,
comprise fully one-third of its weight, all which
is waste and loss.

In feeding with the leaves of the *Morus Mul-
ticaulis*, the residuum being but little or none,
there is no vegetable offal remaining, to become
offensive by fermentation, and hence, a greatly
reduced quantity of labor is necessary to keep
the worms clean : In feeding with the *White
Italian mulberry*, a large amount of stems and
coarse fibres are left on the shelves, which if not
speedily removed, ferment, become offensive, and
consequently produce disease in the worms.

These are a few of our reasons for preferring
the *Morus Multicaulis* to all other leaves, and
we hope by this time that our correspondent is
satisfied that they are such as ought to give to
that tree a preference over all others for feeding
silk worms, where profit is desirable, or the
health of the worms are considered an object of
moment.

COAL ASHES AS A MANURE.

We are aware that many persons entertain the
belief that coal ashes have little or no virtue as
manure, and hence it is that but little use are
made of them in this country for agricultural
purposes ; but when it is considered that coal,
from which they are produced by incineration,
(with, perhaps, the exception of anthracite, and
we have never seen any good reason for the ex-
ception) is of vegetable production, we can see
no just ground for denying to them the proper-
ties of manure. In appearance and smell, they
bear a close analogy to wood ashes, and when
submitted to the test of the touch when wet, they
possess almost an equal degree of causticity ; so
also when tasted, they are nearly as acrid. Coin-
ciding in all these characteristic traits, common

sense would say that they cannot be without the
possession of those virtues, which render wood
ashes a valuable agent in the improvement of
soils. If they possessed no other specific vir-
tue, the property they do possess, of warming,
loosening and intimately dividing, or disintegra-
ting the particles of tenacious clays should
render them, in the estimation of all judicious
farmers, a valuable means of improvement ; but
their adaptation to the melioration of soils, is not
peculiar to that description of lands, as their
good effects have been equally visible when ap-
plied to sands, loams, and marshy grounds, in
Europe, as well as in this country. As top
dressings for turnip lands, for meadows, whether
situated on elevated or low grounds, their bene-
ficial effects have been universally acknowledged
wherever applied. If they be not quite so po-
tent, or durable, in their effects as wood ashes,
they have nevertheless proved of immense value
wherever used. In England they form a compo-
nent part of almost every compost, and are often
used alone ; and whenever there are found a-
mongst them any considerable portion of uncon-
sumed coal, to every cart load of such ashes, 3
bushels of fresh unslaked lime is added, covering
the whole up in a heap for about twelve hours,
till the lime be entirely slaked, when they are in-
timately incorporated together, by turning the
whole over two or three times, by which time
the cinders or unburnt coal will be reduced to as
fine a powder as the lime itself. When reduced
to this state, they are to be applied as are wood
ashes, either by admixing them with the soil, or
by top dressing the land with them ; a hundred
or a hundred and fifty bushels to the acre being
a full dose. With respect to the anthracite coal
ashes, we will remark, that the gardens in *Pots-
ville*, Pennsylvania, we are assured, bear the
strongest and most gratifying evidences of their
fertilizing effects, they being there a favorite ma-
nure.

We have thus felt it to be our duty to call the
attention of agriculturists to these facts, because
from the increasing consumption of coal in all
our larger cities as fuel, the time is not far dis-
tant when they will form a very important means
of fertilizing the lands of farmers in their respec-

tive vicinities. One of our very best farmers in this neighbourhood assured us some months since, that, from a trial he had made of them, he was satisfied they were a most excellent and effective manure; that they had greatly improved the texture, and increased the productive ability of the soil on which he had spread them.

PROSPECT OF THE SILK CULTURE IN MASSACHUSETTS.

A correspondent of the Northampton Courier, in speaking of a visit of a gentleman of Boston to Hampshire county, observes that he expressed his surprise "to find so much had been done in that county, in the culture of mulberry, the manufacture of silk, the preparation for feeding more worms, and the making more raw silk." He further states, that in Northampton, there are *two silk factories in successful and profitable operation*, and although these in the outset were subjected to the necessity of employing raw hands and suffered loss by waste, that by changing the machinery and introducing other substitutes, the difficulty was soon obviated, and the more especially as by the supervision of the enterprising, persevering and never despairing head of the whole establishment, he was enabled to correct the incipient errors, and has now got the establishment on a firm basis of enviable prosperity.

The advice contained in the closing paragraph of the article in question, is so wholesome that we shall copy it entire. He says:

"Our advice is, not to *despond* if in the first trial you do not succeed, but *try again and again*.—Only be patient and persevering, and you will most assuredly succeed. Obtain a skilful reeler to *instruct* your family, and the difficulty will be overcome at once, and when you see the minute and brilliant thread of the cocoon accumulating and maturing into handsome skeins of reeled silk, and find an article adapted to the purpose of being made into beautiful sewing silk, or durable articles of dress, you will have cause to *wonder* that you ever had a doubt of success."

"Our advice is, do not *despond*, if on the first trial you do not succeed!" There is true philosophy in these words; they strike at the very foundation of human hope, and human enterprise. Had the venerated father of our liberties, the peerless Washington, permitted his want of success, in the early period of our revolution, to make him *despond*,—had he suffered the various defeats to which he and his iron-hearted followers were subjected, to lessen his patriotic exertions—had he allowed the sufferings of that gallant band

of spirits who battled for our liberties, when retreating through snow, half clad and worse fed, to have paralyzed his efforts—had he, we say, permitted any or all of these untoward circumstances, to make him *despond*, what, we would ask, would have been the condition of our land at this day? The probability is, that the shackles which then oppressed and bound us to the mother country, would have been drawn still tighter, and at this day, we might have been still the colonies of Britain. But his great soul was not to be thus cast down—the patriotism of his companions in arms were too ardent to be overcome by difficulties, great and appalling as they were, and *he* and *they* increased in ardor and determination in proportion to the degrees of danger and privation with which they were environed, and hence a thrice glorious triumph crowned their perseverance.

Suppose too, the mighty mind of *Fulton* had *desponded* at the cold and almost heartless indifference with which his countrymen *first* treated his discovery in steam, the world at this day might have been without those incalculable advantages resulting from steam navigation. He too, however, *desponded not*; but proved himself equal to the exigencies of the occasion, and has left a monument of his genius behind him as imperishable as the pyramids of Egypt. Why then should silk culturists "*despond*"? Those embarrassments which always beset the pathway of new beginners, have, in a great measure, been overcome by our sagacious and enterprising brethren of the north and east, from whose lights, knowledge will be reflected to illumine all followers in their trackway. We Americans too, have an advantage with which the early European culturists were not blessed. They have acclimated among them the *morus multicaulis*, or *many stalked mulberry*, which is not only one of the very best variety, but one which will enable them to *feed worms* the *first year*. It was not the case when Italy and France and the other European silk culturists commenced their labors. They had to wait from four to six years for the slow growth of the Italian mulberry, before they could reap any advantage from the foliage of the trees; under all this startling sum of difficulty they did not however falter in their course; they beheld in the distance the *ultimate* reward of their labours, and having commenced, under the animating watch-word, "*onward*," they persevered to the end,—till they finally triumphed, and successfully established this lucrative branch of husbandry in their respective countries. Let then, we say

to every American agriculturist, *their* success stimulate each and all of us to exertions worthy of the enterprise, and by *our success*, add, in twenty years, as many millions of dollars of exports to the surplus products of our country!

AN EXCELLENT RECOMMENDATION.

The following recommendation, which we find in the last message of his excellency, Joseph Ritner, of the State of Pennsylvania, manifests a lively interest in the welfare of the agricultural community, and we trust that the legislature will meet it in a spirit which will ensure its being fully carried out. It is to be hoped also, that the executives of such of the other states as have not granted encouragement to the culture commended to protection, will feel themselves called upon, by a sense of enlightened policy, to urge similar measures upon the adoption of the legislatures of the states over which they respectively preside. Attention to the interests of husbandry by rulers, never fails to excite a salutary spirit in the cultivators of the soil, the influence and promptings of which most happily tend to the advancement of private welfare, as well as to the enlargement of the resources of states.

"The culture of the *mulberry* and the raising of *silk*, are now known to be well adapted to the soil and climate of this State. The care of the silk worm is also suited to the other employments of the mass of our population, and the manufacture of the article will add greatly to our wealth. The Legislature endeavoured to promote it, by the act of 1832, authorising the establishment of one silk company in each county. But the means adopted, seem not to have produced the desired result. A company has been chartered in each of the counties of Beaver, Chester, Cumberland, Lancaster, Lebanon and Philadelphia, but without much apparent success. Nor is it perhaps desirable that they should succeed. The silk business will undoubtedly become one of first rate importance among us, and will probably be the sooner fairly established if left to the unrestrained exercise of private enterprise, properly encouraged by the Legislature. With this view, I would recommend that a small premium be offered by the State for a limited time, on specified quantities of the article, when the production of our own soil and industry."

WEIGHING OF LIVE STOCK.

We agree with the editors of the "*Examiner*" that some such remedy as the one proposed in the annexed memorial should be devised, and for ourself we cannot conceive how any victualler can possibly have any objection to the prayer being granted. Honesty and fair dealing between man and man require, that while the *seller* gets paid fully for his stock, the *buyer* should be made

Pay for no more than he gets. The contemplated measure will accurately ascertain the actual live weight of animals, leaving the tare to be regulated by usage, and such mode will most certainly be much fairer than the present loose one of fixing an arbitrary estimate between the parties, which may or may not be correct :

LIVE STOCK.

The subjoined memorial is in circulation in this county and in Montgomery. Those who drive cattle to Baltimore are said to be subjected to much inconvenience and loss in consequence of the want of some such regulation as that prayed, and which exists in other meat markets of the Union. Any one who feels interested that the Legislature should take some action on the subject, can obtain signatures to copies of the memorial. If the representations which are made concerning this matter are true, it is of great importance that some such remedy as that which is suggested, should be devised. We would respectfully urge it upon the attention of the farmers and graziers of this county:

To the Honorable,

The General Assembly of Maryland :

The memorial of the undersigned, farmers, graziers and others, citizens of Frederick county, respectfully sheweth, that the agricultural interests of the state suffer materially for want of an officer properly constituted and appointed to weigh Live Stock, particularly neat cattle, in the meat market of the city of Baltimore.

Your memorialists represent that the loose custom of averaging Live Stock on sale, is the cause of much complaint, and frequently subjects the inexperienced and industrious to the most shameful impositions.

Wherefore, we do pray your honorable body to pass a law, creating and authorising the appointment of an officer in the city of Baltimore, for the purpose of weighing Live Stock on sale, under such restrictions and with such powers as may be deemed sufficient to protect the interest of all citizens, particularly those of the agriculturist. As in duty bound they will ever pray.

BADEN CORN.

We are indebted to the Hon. Henry L. Ellsworth, of the Patent office, for the following communications relative to the above corn, which has gained so much celebrity within the last few years. While we publish them with sincere pleasure, we take occasion to say, that the public are greatly indebted to the praiseworthy exertions of Mr. Ellsworth for bringing the merits of this prolific variety of corn to the notice of the agriculturist. For ourself we feel the more indebted to this gentleman, because from the nature of his laborious official duties, his exertions in behalf of the husbandry of the country, which have been extensively exerted, must be a heavy tax upon those hours which should be devoted to ease in the bosom of his family. Would that the halls

of Congress had many such gentlemen in them ; we might then hope soon to see the foreign shipments of grain dispensed with.

PATENT OFFICE, Dec. 12, 1837.

Dear Sir—I have received many enquiries respecting the culture of "Baden Corn," and addressed a letter to Mr. Baden on the subject. I take the liberty of enclosing his letter for publication in your valuable paper.

Mr. Baden's experiments this season show that his own is earlier than many other kinds. I have distributed the last year a great number of parcels of the Baden corn—that which has been planted in latitude not exceeding 40 or 45 North, has succeeded admirably. It will soon be acclimated in the higher latitudes. Over 100 bushels has been raised per acre on the rich lands of the West and South, without any manure.

Yours, respectfully,

H. L. ELLSWORTH.

Mr. ROBERTS,

Editor American Farmer, Baltimore.

To Hon. HENRY L. ELLSWORTH,
Washington City.

NEAR NOTTINGHAM,

Prince George's County, Maryland,

November 4th, 1837.

Dear Sir—Agreeably to promise I now write you a few lines to inform you that within the last two years (and never before) there has been a report in circulation that my corn was a latter kind. However, for the satisfaction of my friends I have made an experiment this year, which I hope will satisfy every one upon that point. I planted a lot of six acres and a half, as near as I could judge (by stepping) of this kind of corn, the 20th day of May last—my book is now before me. I cannot be mistaken in the date, which is more than a month later than the common time of many persons planting in this neighborhood. I gave it no extra management to hurry its growth, and determined to give it only the common routine of work that I generally give my corn. It is now perfectly ripe and hard, and has been for some time, and no frost could do it any injury in any way, and I believe it will yield as much good sound corn to the acre as any that was planted in the neighborhood any time in April upon land of the same quality. This evidently shows that my corn is a forward kind, and will come to maturity as soon as any other. By the first opportunity I will send you a few stalks of this corn that was planted the 20th of May, and also some that was planted the 1st day of May, with the corn on them, as it grew in both the lot and field, and none with less than *four*, and some with *seven and eight good ears on a stalk*—then I will leave you to judge which of them is the better. As soon as it is sufficiently dry to shell and put up, I shall send you twenty or thirty bushels of as good seed corn as you have ever seen. I have not long since discovered something in this corn, which convinces me that I can still make a great improvement on it, by adding much to the quantity and quality of the grain on each stalk. I am now persevering in my efforts, and intend to raise a large crop every year in its purity, to supply all who may apply for it for seed. I have been

frequently requested to give a statement of my mode of planting and cultivating corn. As the planting and cultivating of corn is so generally understood, I deem it almost unnecessary to say any thing upon the subject ; but to satisfy the wishes of such friends as think they can profit by it, I willingly give it. I first pulverize my land well by good ploughing, and lay it off five feet apart each way. By the first of May, or a few days sooner if the weather is warm, I begin planting—roll my corn in plaister and drop three grains in each hill. As soon as I have done planting, I set to ploughing one row and leave two, and harrow over the field in this way as soon as possible to prevent the corn from washing up in case of heavy rain, which sometimes happens. Then I plough the other two rows at my leisure—as soon as the corn is generally up, I go over and replant all the missing hills ; when the corn shows well along the rows to see how to plough, perhaps when it is 6 inches high or thereabout, I then commence ploughing the second time. The best ploughman commences siding with the bar side of his plough to the corn, and goes as close to it as he can, and throws the dirt from it ; the other ploughman follows on, to plough up the middle of the rows. Their first furrows throw back and fill up the side furrow, which leaves a soft fresh bed for the young roots to run in. As soon as the field is ploughed in this way I put the hoes in to clean out the hills and to place a little soft dirt around the corn, and at the same time to thin it so as to leave two of the best stalks in each hill. The third time of ploughing I turn the mould board to the corn and go near enough to throw the soft dirt around the stalks—that will answer the purpose of hilling and also to cover and smother the grass that may be springing up on the hills. The fourth time of ploughing over the field I don't go so near the corn, nor quite as deep (in particular the first furrow) for fear of cutting the roots : and my wish is never to let it exceed ten days between the times of ploughing over the field. By this mode of working, the corn has always a soft fresh bed to grow in, and always has a healthy thriving appearance, and I don't remember ploughing it oftener than four times, and if the weather is seasonable, I never miss raising a good crop. I never let the suckers exceed a foot or 18 inches high, before I pull them off, the strength will then run in the stalks, which will cause them to grow larger and they will produce more and better ears on a stalk : the grains also will be larger and heavier. I have said I planted my corn 5 feet apart each way. By experience I have found it to be near enough for our lands. Four feet apart each way, and two stalks in each hill is near enough for the richest land with this kind of corn. I like to work my field over the first time after the corn comes up, and the fourth time when I am laying it by, with the *cultivators*—but I make no use of them in wet seasons.

Yours, respectfully,

THOS. N. BADEN.

P. S. I can ship any seed that may be ordered each week to Baltimore, if a few days are excepted when navigation is interrupted by the ice.

The people of the United States consume annually, it is estimated, about 1,800,000 barrels of flour.

SUGAR BEET SEED.

We comply with the utmost cheerfulness with the request of the public spirited and truly patriotic gentleman, whose name is attached to the subjoined advertisement, and commend not only its perusal to our agricultural readers, but hope that they will avail themselves of his patriotic effort to disseminate the genuine seed of this excellent root throughout the country. It is thrice honorable to this good man, that in the evening of his days, surrounded by every thing, as he is, that can lend a charm to life, he is devoting himself with zealously to the procurement and introduction of the most valuable European seeds into the land of his adoption without the slightest prospect of profit, asking nothing for them but prime cost and charges. We were gratified, on reading the advertisement, to find it a very sound condensed essay on the virtues of the beet, and have no doubt it will be read with interest and profit. In a conversation some days since with one, whom we esteem as one of the best farmers in the country, and who has raised the present year both the *sugar beet* and *mangel wurtzel*, he assured us, that he preferred the former to the latter, inasmuch as he believed it contained *much more nutritious matter*, would bear its leaves being stripped equally as well, was equally productive, and was eaten as readily by his stock; and from experience we can say, that as a *table beet* it is far preferable to the best *blood red*, possessing as it does infinitely more sweetness, and being entirely clear of that *earthy taste*, which renders the latter root disagreeable to many palates.

SUGAR BEET SEED.

For sale, 250 lbs., price seventy-five cents per lb., and in bags of six pounds twelve ounces, or thirteen pounds eight ounces; the quantities are chosen to accommodate payments and remittances by mail, the smallest quantity amounting to five, and the largest to ten dollars.

The vegetative freshness of this seed has been ascertained by planting 24 of the burs in which the individual seeds are contained; twenty-two of these burs put out, some one and others more plants.

The Sugar Beet as fall and winter food for cattle of all kinds, merits the attention of farmers in every part of the Union. Compared with turnips it is more expensive in respect to land, as the beet occupies the soil all the season, and turnips require only a few of the fall months; the superior quality and greater certainty of a good crop, leaves the comparative advantage in favor of the beet, and the culture does not interfere with raising turnips; in a good system of farming both should be attended to, because, the wintering stock entirely on straw, hay, and corn, is expensive, and cattle do not thrive so well as when a portion of their feed is Turnips, Beet, Cabbage, or something

green and juicy. The cultivation of most green crops greatly refreshes and improves all soils. Beets and Turnips thrive on light lands, and that species of soil frequently possesses great power in giving vitality to seed; the sprout or "braird" is very vigorous and fresh, but there is a deficiency in the nutritive principle that is required to bring forward a profitable crop of Wheat, Oats, Barley, &c. but they acquire this by being frequently put under green crops; indeed keeping the surface as much covered with foliage, such as clover, turnips, beets, potatoes, &c. under most circumstances will favour the improvement of land, and their direct tendency being to produce manure, the farm is put in good condition; seasons may be a little too dry, or too wet, cold or hot, still the green crops and manure insure to the farmer an abundant harvest.

The length of this advertisement is not in keeping with the sale of a small quantity of seed; the object is to present to the farmers a subject that merits their attention, with a view to enable us to raise our own food from our own land. So long as we are dependant on foreign countries, and foreign labour for food and clothing, it will be a hard task to keep money and public affairs in a wholesome condition.

Our ambition ought to extend beyond the absolute necessities; there can be no good reason for farmers not having about their houses, a few soft-shelled Walnuts, [Juglans.] Maron Chestnuts, [Tagus Castanea.] Grapes, &c. In the case of walnuts all that has to be done, buy a few that are fresh, and these can be had at the fruit stores, put the nuts about an inch under ground at the commencement of or during the winter, on the place which they are to occupy, and protect the tree. In ten or twelve years it will commence bearing; thus farmers will ornament their places and increase their wealth and comfort.

JAMES RONALDSON,
No. 200 S. Ninth st. Philada.

Letters and remittances, post paid, will be promptly attended to.

P. S. Editors who take an interest in agricultural affairs, will confer a favor on the advertiser by giving the preceding a place in their papers.

We have been furnished with the weights of the following individuals of R. W. Scott's stock of Durham cattle. Lady Gray, six years old, 1500 pounds. Bustamente, one year old, 1200 pounds. Ruby, one year old, 1140 pounds.—Frederic, two years old, 1680 pounds. None of these are *fat* but Ruby. We will publish the pedigrees of Mr. Scott's stock next week.

Frank. Far.

EXTRAORDINARY AGRICULTURAL PRODUCTS.

—The following have been sent us: Two large heads of cabbage, one weighing 25½ lbs. by Jas. Guthrie of Shelby. Two Sugar Beets, each 9½ lbs. by Jas. Hackley of Shelby. Texas or Mexico Corn, each grain covered with a husk, by Risden Hart of Scott. Queen Apple, 1 lb. 3 oz. by Aaron Miller, Franklin. Double (or twin) Apple, by Ben Ellis, Franklin.—*Franklin Farmer.*

The crop of apples in Canada has been unusually abundant this season.

[From the Genesee Farmer.]

COMPARATIVE VALUE OF THE HORSE AND OX FOR FARM LABOR.

It has long been our impression that farmers made a serious mistake in their domestic economy, by substituting to so great an extent, horses for oxen, in performing the labor of their farms. We admit that a span of horses will do more in a given time than oxen; that to most farmers it is more pleasurable driving horses than oxen; and that for some kinds of business, such as carrying to market farm produce, the aid of horses is indispensable; yet after these admissions we still ask, is such a general substitution profitable?—for this is the standard by which a farmer should regulate his domestic and farming concerns. We think it is not, and shall give some reasons for our belief.

That a span of horses fit for labor, cost much more than cattle in the outset none will deny. When good oxen are worth eighty or eighty-five dollars a yoke, a span of horses at the same comparative rate of value will cost from \$180 to \$200. The expense of keeping a span of horses throughout the year in a condition fit for labor is much greater than that of keeping oxen in a like state; perhaps if the expense is estimated at one third more annually it would not be below the truth. The expenditure required to fit out a span of horses, harness, &c. far exceeds that necessary for cattle, certainly four or five times as much. The danger of disabling or killing a horse is greater than that of injuring an ox. A horse is by far the most delicate animal; slender limbed, more liable to disease, and when attacked more liable to go down than the ox. If any one doubts this, let him endeavor to effect an insurance on a span of horses or a yoke of cattle, and see what the cool calculators of chances think of the difference. And further if an accident does happen to a horse that renders him unfit for labor, he is utterly worthless, and the only alternative is to kill him at once. It is true Gen. Gaines testified from his own experience in the Florida campaign, that horse meat was no despicable substitute for beef; yet we think few of our farmers would highly relish a horse stake, even if taken from a four year old. On the contrary, if an accident renders an ox unfit for labor, it rarely materially lessens his value for fattening; and all that is necessary is to convert him into beef, and you obtain his original worth, with the pay for expense and trouble of feeding. On this point, the warmest advocate for horses' labor cannot fail to perceive the immense advantage there is on the side of the ox.

We admitted in the beginning of this article, that horses will do more work on a farm than oxen; but the difference is not near so great as many farmers imagine. If the ox is slower, he is more sure, can be more quickly brought to his work, and does not hinder by casting his shoes, or breaking his traces. There is more difference in cattle so far as regards capacity for travel and working quick than there is among horses. A well fed span of horses, where the work is not beyond their strength, will do about as much as another; while among oxen, you may select the Devon whose walk will nearly equal that of the horse, or some of the commoner varieties, where

you are puzzled to tell whether the animal is moving or otherwise. As a general rule, it may fairly be estimated, that a good yoke of cattle, will on the farm, do about two-thirds the work of a span of horses.

In forming our estimate of their comparative value to the farmer, the difference in the expense of raising must not be forgotten. This of course will vary according to the different methods adopted; but one of the best statements, is to be found in one of the reports of an eastern agricultural society, carrying out each item of expense incurred in rearing and keeping until their labor would pay their way, which in the horse was estimated at four, and in the ox at three years of age. The cost of raising a horse till four years old was found to be \$94.26. The expense of a yoke of cattle at the same age, \$65.13. It is true the horse when raised may be worth more than the oxen, but we think when the average quality and value of our horses are taken into consideration, there is quite as much probability that the oxen will be worth eighty dollars, as that the horse would reach that sum. Admitting they were each worth that sum, the man who has raised the oxen has made fourteen dollars eighty-seven cents; while the man who has raised the horse has lost fourteen dollars thirty-six cents by the operation.

The same general rule however will hold good in the raising of animals that experience has proved applicable to the raising of crops on a farm;—never to run into one kind to the exclusion of all the rest. Horses, cattle, and sheep, are all necessary to the farmer; and he who thinks to make money by excluding any of these from his farm, will most likely in the end find himself mistaken in his calculations. The point necessary to ascertain is, what proportion of each will under the circumstances of the farm be the most profitable and to act accordingly. The comparative scarcity of cattle, and the multitude of inferior horses, shows that we have erred on the side of horses, to the neglect of cattle, and the prices not less than numbers demonstrate this fact. Animals which are so useful in every respect as cattle or sheep, are rarely found multiplying in any disproportionate degree. When they are not wanted on the farm, or cease to be profitable for their products, or when the dairy or the fleece cease to be an object, the flocks or the herds can be sent to the slaughter house with no loss to the producer; while, as thousands at the present day find to their cost, they have overstocked their farms with horses which are not wanted for labor, and of which they cannot dispose, except at serious sacrifices.

In Belgium horses are extensively used on farms, but rarely more than one span is kept; as the rule is there to make one span perform the labor of ploughing, &c. for forty-five or fifty acres, and the horses are kept in a state to perform this labor accordingly. In England cattle are most commonly used, and for farm purposes the Devon oxen have a decided preference. They walk fast, are good at enduring fatigue, and in general are less liable to suffer from heat, than other breeds. In New England the ox and the cart still retains the preference on the farm, to the more complicated and expensive apparatus of horses, harness and wagon. In New York we find the horse useful,

and in our grain raising districts indispensable; but the fashion of these districts is too implicitly followed elsewhere; and on farms where a yoke of cattle would be sufficient for every valuable purpose, they are crowded off to make way for a horde of unruly, worthless horses, the plague of their owner's neighbors, and a moth to destroy any farmer's prosperity.

[From the Farmers' Register.]

ACCOUNT OF THE SOILS AND AGRICULTURE OF WESTERN NEW YORK.

During a recent visit into the interior of New York, I had an opportunity of forming some idea of the extent and fertility, the agricultural products and resources, of that interesting portion of our country. As there is a natural desire among the intelligent part of the agricultural community, to be informed of the comparative advantages and the practices of other states, I venture to submit the results of my observations to the readers of the Farmers' Register.

The western part of New York is undoubtedly one of the most fertile and productive districts in the United States. From Utica to Niagara, a distance of two hundred miles, the soil is capable, with some inconsiderable exceptions, of sustaining a population as dense as that which exists in any part of the old world. Even now the number of inhabitants is very great, notwithstanding the constant tide of emigration to the new and fertile regions of the west; and this cause alone will probably prevent it from reaching its maximum during the present century. With unexampled facilities for the transportation of produce to market, and with abundant means at hand for the continual improvement of the soil, nothing is wanting but intelligence and stability to make a garden spot of this extensive region. The climate alone may be considered as unfriendly: for winter intrudes upon nearly half the year, which causes a heavy draught on the labor of the country during the season of vegetation.

In estimating the agricultural merits of a country, its natural structure may be regarded as an important object of consideration. I shall, therefore, introduce such remarks on this subject as would probably occur to any person whose attention might be directed to it. I regret, however, that I was not able to have access to the report of the legislature, that I might avoid those errors into which a traveler may inadvertently fall, from the slight examination it is in his power to make. But I trust that if my description shall be thought erroneous in some of the details, it will yet be found sufficiently accurate to answer the purpose for which it is introduced.

A traveller then would naturally lay off the western part of New York into three divisions: 1, from Lake Ontario to the Gravel Ridge, commonly called the ridge road: 2, from the ridge road to the mountain ridge: and 3, from the mountain ridge to the Pennsylvania line. Upon each of these divisions I will offer some remarks.

The tract of country lying on the shore of Lake Ontario, and extending to the ridge road, may be from five to ten miles in width. It is but slightly elevated above the level of the lake, and so perfectly flat and unbroken, that the motion of the

streams is sluggish in the extreme. The soil, however, which is a black sandy loam, does not appear to be retentive of moisture: and having a slight admixture of lime in its composition, is very productive of corn and oats, when it can be successfully drained; and moderately so of wheat. Its low situation must render it injurious to health. The ridge, which constitutes the southern boundary of this division, presents a curious and remarkable feature; and indeed is perfectly anomalous, as far as my information extends, with the exception of a similar embankment on the south side of Lake Erie. It is apparently elevated about twenty-five or thirty feet above the level of the land on the north, and something less above that on the southern side. It is almost wholly composed of sand and gravel. At one place where there had been an excavation for the purpose of getting materials to conduct a road, there was only a small portion of sand on the surface. The pebbles, which are smooth and formed of red sand stone, were without a particle of other matter among them, except a deposit of lime, which served to cement them slightly together. This fact alone shows the presence of lime in the adjacent soils. It was no doubt held in solution by the waters, which once covered the country, and deposited equally over every part. To what cause this natural embankment is owing, it may be difficult to explain. It will be perceived from the description, that it is of diluvial formation; and many persons have supposed that it constituted the former boundary of the lake. To this theory, however, there are several objections. One is, the absence of a corresponding formation on the northern shores of the lake; another is, that the bank is considerably elevated above the land on its southern border; and a third one is, that near the western extremity, there is an entire interruption for several miles, where no traces can be found. Towards the western termination of the eastern portion, the ridge deflects suddenly to the south, and shortly becomes merged in the general surface. Travelling thence to the west, it is met with again at the distance of six miles, when the ascent to the summit is somewhat abrupt. That its existence, however, was connected with the vast bodies of water to the north, cannot be questioned. At a distant era, and during the convulsive throes of nature, we may suppose that a tremendous wave or succession of waves rolled in from the north, sweeping the earth as they advanced, and that they expended their force at this point. But to whatever cause its origin may be referred, it forms during its whole length a natural road, not to be surpassed in excellence, nor equalled in durability, by the most approved work of artificial construction. Its summit is not more than sufficiently broad for a road of convenient width, and generally speaking, the surface is equally smooth in winter and summer. Along such a great thoroughfare, it may readily be supposed that the population is very numerous. Accordingly each side presents somewhat the appearance of a continuous village. The houses are generally on the declivities, and so near the road as only to allow of yards of the most contracted dimensions.

The next division, embraced between the ridge road and the mountain ridge, presents a more varied surface than the one I have just described.

In some parts it is quite broken, with sandy and gravelly hills of diluvial formations running from north to south, and plainly marking the direction of the current which once swept over it. For the most part, however, it is a beautiful undulating country, with a soil of good texture, sometimes rather heavy; impregnated with lime, but not belonging to the lime-stone formation. The red sand-stone forms the basis of this region as well as of the other. A great number of granite boulders are scattered over the surface, which, from the total abstinence of such original formations in the western part of the state, were evidently brought from beyond the lakes. Broken lime-stone rocks are also to be met with. It is through this tract that the Erie canal is taken for a considerable distance; and the benefits, which have resulted from that great public work are no where so strikingly displayed. Villages have sprung up along the whole line, as if by enchantment and the industry of men is developed in a thousand ways.

There are, however, some portions of this district that are very imperfectly drained—large swamps of fertile land, yet remaining in a state of nature. The chief obstacle to effectual draining is the gravel ridge, through which the streams have, in some instances, found a difficulty in effecting a passage. It was highly interesting to witness the abortive efforts of one of these in particular, repeatedly made during a distance of eight miles. Approaching the embankment in the first instance rather obliquely, it was repelled, after having made a considerable excavation into its side, when it flowed back as if to acquire fresh strength to return to the attack. This was renewed at various intervals, with the same partial success; but at length the object was achieved, and it pursued its sluggish course to the lake. At some points it has been found necessary to open a passage through the ridge to let off the superfluous water; and much yet remains to be done, owing to the small number, and size of the streams, seeking for an outlet, and finding but few.

The southern boundary of this division is not so distinctly marked towards the eastern, as it is at the western extremity. At Williamston, on the Niagara river, and at Lockport, the mountain ridge is probably a hundred and fifty or two hundred feet in height, presenting to the eye the appearance of a *bluff*. Travelling east from thence, its relative altitude becomes gradually less conspicuous, until at length it is difficult for a casual observer to distinguish the line of separation.

But the most important portion of the state is the one which remains to be considered, whether we regard its extent, its fertility, its population or resources. The other districts are deservedly thought to be fertile, and would be eminently entitled to that character if they were situated on the eastern side of the mountains; but this far transcends them in every natural advantage. After ascending the mountain ridge, a vast table land stretches to the south, high, dry, and gently undulating, and possessing a climate remarkable for its salubrity. This is the limestone region of the state; and it is here that the beautiful and picturesque lakes are found, which form so unique a feature in the geographical history of New York. The lime-stone overlies the red sand-stone to the

depth of perhaps five or six hundred feet; and in many places the soil is covered with broken fragments of the same, mixed with boulders of different varieties of granite. Where these occur in considerable numbers, it requires great labor to subdue the land and prepare it for cultivation; but they are not considered such a serious objection as one might suppose, who has not been accustomed to them. They furnish materials for building houses and making enclosures; the latter of which, when put up with skill, require but little trouble to be kept in repair. This, however, is but a small portion of the service they have performed; exposed, for ages, to the action of the elements, they have become obviously disintegrated, and have afforded such an abundant supply of lime to the soil, that it may truly be said to be inexhaustible. So great is the amount of calcareous matter it contains, particularly a few inches below the surface, that a brisk effervescence ensues when mixed with acids. I would not wish, however, to be understood to say that this is uniformly the case; but the quality of the land is apparently so near the same, and the disjointed lime-stone is distributed so regularly over the surface, that I can only regard the absence of an equal proportion of the carbonate of lime, as an occasional exception of the fact I have stated. When we add to the knowledge of this fact, that there is never any parching of the earth by drought, as is often the case in more southern latitudes, it can no longer be a matter of surprise that the crops are so abundant, or that the farmers of N. York, on tracts of land from 100 to 150 acres in extent, should grow rich by cultivation of the soil. Of their system of agriculture I shall speak in the proper place.

The lakes, I have said, form a remarkable feature in the geography of the state. They lie parallel to each other, extending from south to north; and every great natural valley is a reservoir for the waters of the neighboring streams. They are of very unequal elevation; the surface of the Cayuga, for instance, being forty feet lower than that of the Seneca, lying by its side, not more than twenty miles distant. This is obvious from the fact, that the outlet from the Seneca empties into the lower end of the Cayuga; and along its margin there is water power to considerable extent. The deepest part of Cayuga lake is about two hundred and fifty feet, which renders it probable that the red sandstone forms the basin of these interior lakes, as well as those of Ontario and Erie. Near the extremities, however, the depth is not so great. They were formerly inhabited by shell fish in large numbers, as is evident from the extensive bed of marl found at the lower end of the Cayuga. It is very pure, and of such whiteness that it was formerly used for whitewashing the farm-houses; but it is latterly substituted by stone lime. No use has been made of it for agricultural purposes.

These lakes, besides affording great facilities for intercommunication, agreeably diversify the country, and render it doubly charming to the lover of the picturesque. They are frequently seen by the traveller for miles before he reaches them; and in connection with the country lying in the distance on the opposite side, they furnish landscapes truly enchanting. Perhaps I could not convey a better idea of the beauty and situa-

tion of the country, than by briefly describing one of these landscapes. It was on a delightful afternoon in the month of August, when I approached the west bank of the Cayuga lake, with the intention of crossing over in the little steamer, which incessantly plies from one side to the other, a distance of three miles. Being detained longer than I expected, I had a favorable opportunity of contemplating the scene before me. The transparent sheet of water stretched far to the south, and on its unruffled bosom lay the little crafts, without a breath of air to move them; the opposite shore was sprinkled with numerous villages, whose white houses glittered in the soft rays of the evening sun; while beyond, in the background, the country rose from the water, for five or six miles, at a regular slope of a hundred feet to the mile, showing to infinite advantage the numberless small farms and neat farm houses, like patches in the distance. It was altogether unrivalled by any thing I had ever seen, though I had scaled the summit of the Peaks of Otter for the purpose of having a view of the surrounding country, and had gazed with delight from the brow of Laurel Hill, which overlooks the western part of Pennsylvania.

In describing a country, it is proper to say something of the natural growth of the soil, as it is considered an indication of its quality. The forests of New York are extremely dense, and remarkable for the size, and particularly for the height of the trees. In summer their foliage presents a shield through which the sun can seldom penetrate. The most magnificent production is undoubtedly the American elm, (*ulmus Americana*;) and the *u. racemosa*, a species peculiar to that locality, is scarcely inferior to it. The sugar maple and black maple—the tulip tree or poplar of the south, (*liriodendron*)—the basswood (*tilia glabra*)—the beech and the two species of walnut—are the fit compeers of the elm. Besides these, there are many of the second class, among which may be enumerated the cucumber tree, (*magnolia acuminata*;) the white and black ash, the cotton wood, (*populus angolata*;) and several species of oaks. I was rather mortified to see these monarchs of our southern forests hiding their diminished heads beneath the elm and the maple. The soil is doubtless less congenial to the oaks than it is to the south, which are scrubby and stunted in comparison with the size they attain in Virginia. The species are, moreover, limited to a small number. The pines are only occasionally seen in the western part of New York; and when they do occur, it is in sandy districts of limited extent, between the limestone land and the lake. The white pine (*pinus strobus*) is the most majestic, as well as the most valuable. The hemlock, (*pinus canadensis*)—the Norway pine, (*p. resinosa*)—the hack-match, (*p. pendula*;) and some inferior species, together with the arbor vitae, (*thuja occidentalis*;) grow in the same localities.

The extreme luxuriance of the deciduous forests on a highly calcareous soil, struck me as being incompatible with the theory of an ingenious and distinguished writer, published in a former volume of the Farmer's Register. In treating of the origin of the western prairies, he endeavored to sustain the position, that the presence of carbonate of lime was unfriendly to the growth

of timber. If the position was assumed without any qualification, the facts I have stated must go to invalidate it; but if he had reference only to the oaks, which constitute the principal growth among the prairies, the limited number and small size of those growing on the limestone soils of New York may necessarily tend to support it. Besides, there are many hardy southern plants, as I was informed, which will not flourish, or even grow, in the calcareous soils of that state. I regret that I cannot now enumerate them.*

I should not omit to state that the precipitous banks of the Niagara river afford an interesting and imposing view of the geological structure of the contiguous country. In the immense chasm which the current has worked out, we have almost at a glance of the eye, a sight of the different rocks which are found in the western part of the state. The strata are disposed so nearly horizontally, that we must suppose the elements to have been in a state of almost entire quiescence during their deposition. There is, however, a gradual dip to the south, which becomes apparent in ascending the river. Beginning at the base of the mountain ridge, the red sandstone forms the substratum, which is distinctly visible for two or three miles up the river. Overlying this, and commencing at the mountain ridge, is the common limestone, rising suddenly to the height of some two hundred feet. Ascending the river some miles, this deposit gradually sinks, and another of the fetid limestone commences, and continues with equal regularity. At the falls, which are seven miles from the mountain ridge, this is the only rock to be seen, which in its turn is overlaid by the hornstone or corniferous limestone, upon which the waters of the Niagara flow, after being discharged from Lake Erie. If, therefore, as some writers suppose, the falls are gradually receding, the hornstone will offer a barrier at which their progress will be arrested, and which they can never by possibility overcome.

Having dwelt, perhaps too long, on subjects of a general character, I shall defer, until another month, the remarks I propose to offer on other matters.

[To be continued.]

*The position assumed in the "Essay on the formation of prairies," (p. 321, vol. iii.) which is referred to above, was not meant or stated as unqualified, or universally true. The writer believed, indeed, that a calcareous soil was less favorable to the growth of most forest trees, than a soil not calcareous. To some kinds, (as specified above by our correspondent,) such constitution of soil may be *positively* as well as *comparatively* unfavorable—and to others, as of the most usual kinds and numerous pines, a calcareous soil is altogether inhospitable, and seldom permits a single tree to live. On the other hand, some trees thrive best on soil containing mild calcareous earth, and will hardly live where that ingredient is altogether deficient, and greatly wanting to the constitution of the soil; of these, the common locust, (*robinia pseudacacia*.) is the most striking example.

But the mode in which the calcareous quality of soils was supposed (in the theory of the formation of the prairies) to prevent the growth or continuance of trees in general, was not only, nor

principally, by being *directly* unfavorable—but *indirectly*, by favoring, in a much greater degree, the growth of rank grass, which furnished every winter more and more fuel to the fires, as the trees more and more gave way to their effects, and to the more vigorous and increasing growth of grass.

ED. FAR. REGISTER.

[From the Indiana Farmer.]

DURHAM CATTLE.

It is a matter of surprise, even to some of our agricultural friends, how this improved breed of cattle, can be worth the high prices they are bringing throughout our country.

There are many reasons for this. First, they grow larger than our common cattle. Secondly—Their flesh grows more abundantly in those parts where it is considered most superior.—Thirdly—They fatten more easily than the ordinary kinds. Fourthly—Cows of this blood, give more milk—and some think of a better quality. Fifthly—This stock arrives at maturity much earlier than the common cattle of our country.

It has been often remarked that if all the grain and hay an ox or cow of the common breeds eats, before they arrive at maturity, were weighed, and measured, and sold, that it would amount to more than the animal would sell for, to say nothing about the time spent in feeding, or, the amount of pasturage. We have no doubt that the way cattle have been managed, generally, in this state, this remark would hold good. This, then, renders it important, that every effort should be made by our stock raisers, to economize, by the preparation of food, especially, in this country, where such beautiful crops of roots may be produced, and where so much, that may, with a little attention and preparation, be converted into fodder, is suffered to stand in our fields and go to waste.—But, more especially, would it be to their advantage as soon as possible to get into a breed of cattle, that will come to maturity *earlier* than those they now have.

On this account, perhaps, arises the profit from the Durham Cattle, more than from any other cause. They are said to come to maturity from two to three years earlier than our scrub cattle. This, we have no doubt is the fact, when they are well attended to, and the common breed receive only *ordinary* attention. But there is no doubt, with the *same care*, the expense of feeding one or two winters may be saved by our farmers, if they will procure the Durham Cattle, which together with the profits arising from the other superior qualities they possess, will make the stock raising business, in this state, so peculiarly adapted to that branch of husbandry, a most lucrative business.

SEED CORN.

The address of Mr. Lewis, which we published last week, contains the following excellent recommendation, founded on an established truth of nature. We place it again before our readers in a separate paragraph, believing its benefit will thus be made more available to a larger number of farmers.—*Frank. Farmer.*

"Our corn crops, are not by half so great on a given quantity of land as they *should* be—as

they *would* be from seed carefully selected and combined, and separately cultivated. The separate cultivation of the many eared Maryland corn, I conceive, promises great advantages. *Corn planted at a greater distance and with fewer stalks in the hill, tends to produce more ears. That tendency should be kept up and increased by separate and distinct cultivation of corn for seed every year.* Seed taken from the great body of the crop, planted closely to produce as much as the land will bear, although the ears may be large, tends to produce fewer ears on the stalk."

TRY THE NEW ESTABLISHMENT. NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch.

Also, Cline's combined Plough.

J. T. DURDING.

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GEESE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnet's stock, BOTH PURE WHITE.

oc 17 5t

ROBERT SINCLAIR, senr.

ROBERT SINCLAIR'S NURSERY, AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the **FINEST VARIETIES** known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

oc 17 5t

ROBERT SINCLAIR, senr.

CONTENTS OF THIS NUMBER.

The advantages of the morus multicaulis over the morus alba compared—coal ashes as a manure—silk culture in Massachusetts—Gov. Ritner's recommendation of the silk culture—weighing of live stock in Baltimore; memorial to the legislature on the subject—interesting communication on the subject of Baden corn—quantity of Flour consumed in the United States—sugar beet seed—weight of Mr. Scott's Durham cattle—large agricultural products—crop of apples in Canada—comparative value of the horse and ox—interesting account of the soils and agriculture of western New York—Durham cattle—seed corn—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel	76	78
White.....	"	75	78
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	2
Louisiana—Alabama.....	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR&MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's.....	"		
SuperHow. st. from stores	"	9 25	9 50
" wagon price,	"	9 00	
City Mills, super.....	"	9 25	9 50
" extra	"	9 75	
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhds.	hhd.	23 50	24 00
do. in bbls.	bbl.	5 00	5 25
GRASS SEEDS, wholes. red Clover,	bushel.	5 50	6 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 25	6 50
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,....	"	8 00	10 00
" good yellow,....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	2 00	2 10
Red, best.....	"	1 85	1 95
Maryland inferior	"	1 68	1 85
WHISKEY, 1st pf. in bbls.....	gallon.	43	44
" in hhds.....	"	42	42½
" wagon price,.....	"		39
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured...	pound.	13	13
Shoulders,.... do.....	"	10½	10½
Middlings,.... do.....	"	do	do½
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 87½	
CHOP RYE,.....	"		1 75
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	
Branch at Baltimore,....do	Farmers Bank of Virgi. 1½a1½
Other Branches,.....do	Bank of Virginia,..... do
MARYLAND.	Branch at Fredericksburg, do
Banks in Baltimore,....par	Petersburg,..... ½
Hagerstown,....¾a	Norfolk,..... 1½a1½
Frederick,.....do	Winchester,..... ½
Westminster,.....do	Lynchburg,..... 1½a1½
Farmers' Bank of Mary'd, do	Danville,..... ½
Do. payable at Easton,.... 1	Bank of the Valley,.... ½
Salisbury,.... 2 per ct. dis.	Branch at Romney,.... do
Cumberland,.....do	Do. Charlestown,.... do
Millington,.....do	Do. Leesburg,.... 1½
DISTRICT.	Wheeling Banks,.... 3a3½
Washington,.....	Ohio Banks, generally 6a7
Georgetown, } Banks, ½p.c.	New Jersey Banks gen. 5
Alexandria,.....	New York City,..... ½
PENNSYLVANIA.	New York State,.... 3a4
Philadelphia,.....¾a	Massachusetts,.... 3a3½
Chambersburg,..... 1	Connecticut,..... 3a3½
Gettysburg,.....do	New Hampshire,.... 3a3½
Pittsburg,.....¾a	Maine,..... 3a3½
York,..... 1	Rhode Island,.... 3a3½
Other Pennsylvania Bks. 4	North Carolina,.... 5
Delaware [under \$5].... 6	South Carolina,.... 8a10
Do. [over 5]..... 2	Georgia,..... do
Michigan Banks,.....10	New Orleans,..... 12
Canadian do,.....10	

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleyville, Halifax Co. N. Carolina.

SYDNEY WELLER.

Nov. 9, 1837—21

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A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

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Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Threshing Machines, with or without horse power
Superior Grain Cradles
F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes

A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes
Swingle Trees and Hames

Also, a great variety of Hay Forks and Rakes
Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice

Manure Forks, Shovels, &c.
English Corn Hoes
Superior American made Casteele Hoes, with handles
Wheat FANS, of various sizes
Liberal discount made to those who purchase to sell again.

Mattocks, Picks and Grubbing Hoes
Corn Shellers
All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

Jy 4 J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardihood, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.
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The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 35.

BALTIMORE, MD. DECEMBER 26, 1837.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS and FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: DECEMBER 26, 1837

CHRISTMAS—Our readers will receive our best respects and the compliments of the season.

As most of the legislative bodies of our country are now in session, it is to be hoped that each and all of them will do something to promote the interests of agriculture; and should no movements be speedily made voluntarily, we trust the agriculturists of the several states will approach their respective legislatures in memorials, setting forth their wants, and asking such aid as may be required.

THE HOLLOW HORN—We would again remind our readers that this disease may be prevented if the following precautionary plan be adopted and adhered to:

Once a fortnight put a teaspoonful of spirits of turpentine in the *cavity* or *cup* just behind the horns of *neat* cattle.

LARGE CROPS OF CORN.

(From Kent Bugle.)

MR. EDITOR,—For the encouragement of the agriculturists of Kent county, you will confer a favor by giving the following statement in your very useful paper. There was raised by the subscriber, in Chestertown, on a small piece of ground, 99 by 45 feet, 4 barrels of corn, which would be at the rate of 195½ bushels to the acre. I planted it on the double drill system. The drill is two feet apart with three stalks in a hill; it must be worked early, and plastered at six inches high. If the land be strong, well prepared and cultivated as farmers ought to cultivate their crop, they would be sure to realize a full crop. Quere,—if so much ground can be made to produce 4 barrels of corn, why not a larger portion? All the farmer has to do is to make his land rich, and a few acres will bring him more than a large farm. Let any man in Kent beat this.

SAMUEL L. RAWLEIGH.

We understand that Mr. John Ridgely, of Hampton, raised off a lot of 5 acres at the rate of 19 bbls., or 95 bushels to the acre.

Mr. Henry Schwartz, who resides a few miles

from Baltimore, on the Frederick road, raised on a field of 25 acres, at the rate of 75 bushels to the acre.

Such results as these should encourage our brethren of the plough to persevere in their exertions, to *manure and tend well* whatever corn they may put in. It is certain that by a rigid adherence to these particulars much greater crops of corn can be grown than our agriculturists have been used to. In the more exhausted parts of Maryland, we have been assured that crops do not average more than from 2 to 4 barrels to the acre. How much better would it be were those whose misfortune it is to have such poor land, to put in but one-half the quantity they usually cultivate, and give to *that* a double portion of manure and labor, than to be killing their beasts and hands in fruitless endeavors to raise corn from lands whose heart's blood have been long since extracted.

DISEASES OF SHEEP.

The diseases of this most useful animal are but little attended to; numbers die that might be saved by medicine, if shepherds knew what was proper to give them.

Foot-rot is a most troublesome and difficult disease to cure. Put the sheep in a dry fold; clear the dirt from between her claws with an old tooth brush; apply to the parts affected, with a wooden skewer or feather, butter of antimony, and let the sheep remain an hour in the fold. Or, apply a paste, made of equal quantities of blue vitrol, gunpowder and train oil.

Scab.—The most effectual remedy is the mercurial ointment, to be had ready made at all druggists; which is also good for sore heads, caused by the fly, or for maggots.

Gurry.—One small tea spoonful of turpentine, and four table spoonsful of salt and water—one does is often sufficient. Or, Peruvian bark, ginger-root, and prepared chalk—one drachm—in warm gruel, with a table spoonful of gin or brandy. If a severe case, a tea spoonful of tincture of opium.

If a sheep that is fat, or nearly so, appears to be off from its food, for some days, from some internal complaint, the safest plan is to have it killed.

Scouring of young Lambs.—Ginger and rhubarb, one tea-spoonful, in warm gruel, with ten drops of laudanum. Fourteen tea-spoonsful of rhubarb, seven of ginger, and seven of laudanum, or tincture of opium, will dose a score of lambs, about three quarters of a year old. Many flocks of lambs having been kept very short of food du-

ring the late dry summer, numbers have died from eating the young succulent grass which sprung up when the rain came.

Ewes injured in Lambing.—Apply to the parts warm water, and after, warm fresh grease; and then outside, some known good oils; give a drachm of Peruvian bark and ginger in gruel, new milk, warm, made of linseed and oatmeal; add a table-spoonful of gin or brandy, and treacle.

To prevent the Fly.—A powder, composed of white lead and wine arsenic, to be shaken on with an old pepper box; it is to be had ready prepared of any druggist.

The most fatal disease is the rot, which is thought to be incurable; but I know from experience, that the progress of the disease may be so checked, that the animal will get fat enough for the butcher. There are various opinions as to the way in which this disease is contracted. I have ever thought it has been by the sheep eating in summer, or autumn, the grass of flooded meadows, or swampy pastures, on which some sort of grub had deposited its larvæ, which are not destroyed by the heat of the stomach, but mixing with the chyle, find their way into the vessels of the liver, where they become what are commonly called flukes, from their resemblance in shape, to flounders; where they absorb the chief nourishment of the blood of the animal, and then, in a short time cause its death. It may fairly be asked, how is it that beasts eating the same grass are not affected by it? The reason probably is, that the digestion of an ox or cow is so much stronger, that the larvæ are destroyed, and carried away with the food.

An eminent surgeon has informed me that there is no communication with the stomach and the liver, but as he cannot in any way account for the flukes getting into the liver, I do not give up my opinion. I am strengthened, too, in my belief, from its being well known, that after a frost of forty-eight hours, or less, sheep may safely be kept in a pasture, which, had they been put in before the frost (even for one day,) would certainly in the course of two or three weeks, be found to have flukes in their liver, but which is prevented by the frost destroying the larvæ on the grass. I am quite aware that many other scientific objections may fairly be made against my idea; such as that the worm or grub, a cold-blooded creature, intended to live in common atmospheric air, could not exist in the inside of any animal. Bots, so common in horses laying out at grass, it is well known, are produced from the horses biting each other, in kind fellowship, about their manes, where some sort of fly or moth had deposited their eggs or nits, which the horses thus get into their mouths and stomachs, where they become bots, and make their appearance in the horses' fundaments. It cannot be supposed that instinct points to the moth or fly to leave its eggs there for the purpose of its getting into the horse's stomach;

it appears to me that it probably only leaves it on that part from finding a saliva there from the playful biting of another horse. Hearing a farmer complain, in the year 1814 of the great loss he had sustained by the rot in his sheep, I recommended him to try Armitage's remedy; he had no faith in any of the nostrums; it was, however, agreed between us, that as I was going to London the next day, I should bring a sufficient quantity for a score of sheep, which he was to take on return, or sell me a score of sheep for ten pounds. He sent me the sheep. Our farms were divided only by a small brook, but the sheep having to walk a mile to get to my farm, two of them died in that mile. I dosed the eighteen according to directions. Sixteen soon seemed more lively for it; to the two that did not, I gave the medicine I had to spare, which proved to be over-dosing them, and consequently killed them. Thirteen of the others I made fat in the summer, sent them to London, and made about forty-seven shillings a head. One proved what is here called a rubber, which no feeding will make fat; one was drowned.

To see what sort of mutton the best was, I had one killed and consumed (all but one leg which I sent to the farmer,) in my own family, who knew nothing of the circumstance attending it, and therefore found no fault with the meat; but some one, I recollect, commended some joint as being very tender. The farmer could scarcely believe that the leg of mutton I sent him could have come off one of the poor miserable animals that he sold me. For my own part, I confess I could not relish the mutton, although I felt sure there could be nothing unwholesome in it. The difference between that and the other mutton is, the lean is more tender and less flavored; the fat is whiter, and the gravy lighter colored. The farmer informed me afterwards of one circumstance which was important. He said he understood I was to have forty of his sheep, and therefore he drew forty of the worst of his flock, and marked them for me; that the next day, not liking to part with so many at so poor a price, he turned back into his flock twenty of the best of them with the mark on, and every one of those twenty died. A few years ago, I made several inquiries after the medicine, and could hear nothing of it, but found that Armitage was dead. No medicine can make sound a liver that is in part rotten; but it can so stop the progress of this disease by killing the flukes, as to allow the sheep, with a summer's feeding, to get remarkably fat. The chief ingredient in all the medicines must be oil of turpentine.—*Hillyard's Practical Farming (an English work.)*

(From the Franklin Farmer.)

BEE-MOTH AND BEE-MANAGEMENT.

Mr. Editor—According to promise, I will pursue this subject, with some apprehension lest your editorial note may have induced the belief that I was about to divulge some mysterious and sovereign specific, for the destruction of these hateful insects. So far from it, the plan which I at present pursue, is exceedingly simple, and susceptible of universal application; and may not have been practiced by me alone, or by me first. But as I tried many unsuccessful experiments, and lost many valuable bee stands, before I adopted this plan; and as it has been quite satisfactory thus

far, and it is not generally practiced, I cannot refuse to communicate it, according to your request.

A shed should be built with three sides closed tight, and with the other side open to the east, high enough, under the eave, to admit two bee-benches, one above the other, and broad enough to walk freely behind the stands, with a door in one end of the shed for persons to enter it. The boxes should be arranged upon these benches with their entrances outward, so that the bees will be under no temptation or inducement to come behind them.

The boxes should be 20 inches square in the clear, made of thick seasoned plank well put together, with tight joints. The bottom of the box, which sits upon the bench, should be bevelled, from the outside, to a sharp edge. Cross sticks should be put in the box, and notches made for the bees to enter, in the usual manner: and large holes should be bored in the top of the box, to be covered with a cap twelve inches square, bevelled as above, after the box shall be well filled.

When the bees begin to work in the spring, the boxes must all be raised upon the blocks put under the corners, high enough to permit the bees to pass freely under them; but not high enough to admit mice. The blocks must be high enough for the box to sit upon them without rocking or slipping. A light, slim, wooden paddle should be made, with a handle about 18 inches in length, and with a short, thin, elastic blade, and should be kept always in the bee-house. With this instrument in hand, the bee-master must walk behind the benches, and tilt the boxes over from him, look into them and search for and destroy with the paddle, any flies or maggots which may be found. The house being open only in the front, and the bees being accustomed to fly out only on that side, this operation may be performed with security and at leisure. Indeed it will be a pleasant place, which may be resorted to at any time day or night; and the bee manager, whether male or female, so far from finding it an unpleasant or perilous task, will find it an agreeable and profitable amusement, and will be so much interested with the bees as to visit them too often for the moths to make much progress before they are discovered and destroyed.

If you wish to take some honey, a cap may be removed at any time, an empty one put on the box, and you may retreat through the side door, without the least inconvenience to yourself or interruption to the other bees.

The blocks not only serve to prevent a lodging place for the maggots, but also prevent the bees from being mashed when the box is set down, after being inspected. Nails have been recommended instead of blocks, but the difficulty of inserting and removing them renders them objectionable.

There is no effectual virtue in the nails, or in the blocks, or in the manner or material for making the boxes; or in drugs or liquids to drive the moths from the hive. *The boxes must be raised up, and inspected frequently and carefully, and the moths and maggots killed with the paddle.* This will give but little trouble and much pleasure and profit too, if the bee house is constructed on this plan, and is conveniently situated, so that the bee master can often step in and spend a leisure moment in witnessing and assisting the labors of these his industrious and unhired servants.

For this sort of attention my bees have this year repaid me with over two hundred pounds of delicious honey, and with new swarms. 'Tis true I have had to inspect them often and kill many moths; and have lost two stands by depending upon the blocks and boxes too much, and not using the paddle enough.

Your friend,

R. W. S.

SHAKER PIG-STYE.

"The pig-stye at Canterbury, is well worth a visit for the neatness, yes, the neatness of a pig-stye! and the admirable and happy condition of its tenants. Twenty or thirty swine in clean swept styes, whose average weight at killing time will be between four and five hundred pounds, is a sight which Parson Trullive would have looked upon with ecstasy. The whole care of the swine in one building devolves upon one man, whose feeding tubs, and pails, and dippers, and cloths, were as neatly arranged as in any lady's kitchen. The troughs are so arranged that the pigs are shut away from them while filling; of course there is no interference or squealing from the hungry expectants. The food given them is always cooked, and the Shakers consider a portion of rye mixed with the corn as very much improving their food. Their experience leads them to the conclusion that it would be better to buy rye at a quarter of a dollar more a bushel than corn, to mix with corn in equal parts, than to give their swine Indian meal alone."

[This extract, which we find copied from Mr. Colman's letters, while it shows the value of neatness in fattening pork, and the importance of cooked and mixed food, reminds us of a remark made by a farmer remarkable for the weight and quality of his pork. He said he also mixed oats in the proportion of one-third with his corn for grinding, and his experience had taught him that he had better pay the price of corn for his oats, than to feed corn without them; and if success be a test of correctness in farming, he was right.—*Gen. Farmer.*]

SHAKER BARN.

The English agricultural journals are warmly praising a mode of curing hay by ventilating the stacks or mows, and thus preventing mold or must; it will be seen by the following extract from the same writer's papers, than ventilation is no new thing among the shakers.—*ib.*

"The great object of agricultural curiosity at Hancock, is their magnificent circular stone barn, two stories in height, and ninety-six feet in diameter. The great mow is in the centre, and is said to be capable of containing four hundred tons of hay. The door, or drive way, is on the outside of the circle, and the team goes round and comes out of the same door by which it enters. By all passing in the same direction, several teams can stand on the floor and be unloaded at the same time. In the centre of this mow a large mast or post is erected, reaching from the ground to the roof, which is crowned with a small cupola. Slats, or pieces of plank, are secured around this post at a small distance from it, to prevent the hay from coming in contact with it, and the hay at the bottom being raised from the ground, a perfect ventilation is kept up, and the steam from the new hay is effectually carried off."

TRANSMUTATION OF GRAIN.

But for the sanguineness of some of the readers of the Monthly Farmer, in the belief that wheat and other grains will turn to chess, I should not intrude this communication into public notice. —If they could read the former volumes of the Genesee Farmer, I think they would be convinced at the absurdity of the notion. There experiments are recorded, experiments conducted scientifically and minutely in every detail, to test the controversy; and could those who believe in the doctrine of transmutation have the privilege of perusing these statements, it would tend greatly to disarm them of the discordant views they entertain of vegetable physiology, and lead them to investigate the subject, and draw different conclusions. But the practicability of this is deemed doubtful for many of the readers of the Monthly. Hence a few facts and considerations are respectfully submitted.

In the first place, the laws of Nature are eternal and unchangeable. Now in all the operations of nature we observe certain fixed and invariable principles which are never violated. To give countenance to the doctrine of the mutability of wheat, must suppose an innovation and perversion of the established laws of nature, which from time immemorial have through all the mighty system of the universe in operations, great and small, stood firm as the pillars of heaven. Some have said that it is no more extraordinary for wheat to turn to chess than for sweet to turn to sour, or cider to vinegar. There is no analogy in the process by which sweet turns to sour, and that which by possibility wheat could be turned to chess. The one is decomposition and re-combination—the result of fermentation, effected by the operations of the elements upon an organized substance. The other “is a regularly organized body only in a limited degree subject to these laws of the external kind, obeying certain fixed and arbitrary laws engrafted within the very tissue of its existence; and it is the very business of these laws in organized bodies, not only to preserve them from destruction by the deterioration of time and the elements, but also from transmutation, change or degeneracy.” If then these laws which have regulated the propagation, and preserved so identically the specific peculiarities of all organized existences, from the earliest time down to the present day, and which will continue the same to the remotest age of time, how can it be supposed that one genus or class of plants will turn into another? Inconsistency of thought! And to which laws the Creator has given such instinctive characteristics, in preserving order and harmony in the most beautiful and useful portion of creation. Can it be thought with propriety that they are now less capable of fulfilling that office than at first?

2nd. We have the authority of the sacred writings against the doctrine of transmutation. —In the creation of the animal and vegetable kingdom, God formed each individual species after its kind as is declared in Genesis: “God made the beasts of the earth after his kind; and cattle after their kind, and every thing that creepeth after their kind.” Every order of creatures was formed in such a manner that they should ever continue to propagate its kind and no other. This law, which the great Author of Nature impressed

upon his works, has even, and will ever continue immutable in the animal kingdom. It is utterly impossible for one species of animals to produce another and entire different species; and where there have been strange and unnatural mixtures, the established laws of nature have rendered the offspring incapable of procreation. Now the scriptures are equally pointed, and precisely the same style of language is used, when speaking of the creation of the vegetable kingdom, as of the animal kingdom; which shews that the same impassable barriers are interposed between the different genera and species of vegetables to keep them separate; that they are subjected to the same unalterable laws; and that it is equally as impossible for one genus of plants or grain to produce another, as for one kind of animals to produce another entire and different species. “And the earth brought forth grass and herbs, yielding seed after his kind, and the tree yielding fruit whose seed was in itself after his kind. And God saw that it was good.” Do these words mean any thing, “yielding seed and fruit after his kind,” each after its own and not after another? Grass yielding grass, wheat yielding wheat, and chess yielding chess. If so, how has it come to pass that the plant which yields to man the “staff of life” has ceased in any instance “to yield seed after his kind,” but instead of it a worthless grain scarce fit for cattle to eat? Consider this, ye advocates of transmutation! and see that your belief does not charge the Almighty with inefficiency of organization. For to suppose that wheat will degenerate into chess would be to impeach the wisdom of the Creator, when he framed it for man, and his veracity when he pronounced of the work of his hands “that it was good.” One more passage and I shall be done with scripture testimony: “That which ye sow ye shall also reap.” Who supposes that the evidence of the adaptation of this truth to the present time, is not as great as it was some centuries since when it was uttered by the Apostle. None but those who contend for a theory, they cannot rationally support by any plausible argument. When defeated in argument, they generally resort to the subterfuge, that “as our fathers believed so do we.” But how will the belief in the mutability of grain compare with the above quotations? Are not the scriptures infallible? I am of opinion, and my opinion is not only supported by the inspired writings, but by the philosophy of nature, that if pure wheat is sown on land free from filth, pure wheat will be the result; and if we sow chess, such we shall reap.

3rd. The doctrine in question is unreasonable. Shall we set aside reason for an assertion, which if true would unsettle a fundamental law of nature? It is an invariable law of nature for every kind to produce its like. It is a law of His creation, an inviolable principle in nature that “like shall produce like.” If we admit that different kinds of grain will produce a different species, where would be the limit to such an idea? —The mind habituated to close reasoning, is lost in conjecture. Surely if this peculiar change takes place in one class of vegetables, it must in others; for say they, disease is the cause of change, and many, if not all vegetables, are subject to disease. O the result of such a theory! Confusion and disorder would pervade the universe,

and nature would present one chaotic scene! —Vegetables when they happen to be winter-killed or diseased changed into something else! O blind infatuation! When will the sons of this enlightened land learn from reason and experience the absurdity of such an hypothesis! But enough.

I have extended this communication to greater length than I anticipated, but I will state, that from one kernel of chess, I raised in my garden this year, 3,600 kernels! of pure chess. There were 36 stalks, and they averaged 100 kernels on each. When wheat is winter-killed, if there is any chess in it, it extends its branches and roots, and occupies the place of the wheat. —Hence the more chess where wheat has been destroyed; chess being more hardy, it is not so easy of destruction. Is not this a more rational way to account for the appearance of chess among our wheat than ascribing it to the theory of transmutation.

R. H. SHELDON.

Brutus, Oct. 11th, 1837.

THEORY OF AGRICULTURE.

The theory of agriculture, which we lay down, is built upon the following fundamental principles; and with one or other of them every part of rural practice is more or less connected. *First*, that the soil ought to be kept dry; or, in other words, free of all superfluous moisture. *Secondly*, that it ought to be kept clean; or, in other words, free of noxious weeds. *Thirdly*, that it ought to be kept rich; that is, that every particle of manure, which can be collected, ought to be applied, so that the soil may be kept in a state of yielding good crops. Every person possessed of a sufficient capital stock, may act according to the first and second principles; but it is only where local circumstances are favorable, that the last can be carried into effect. No more, however, being required of the farmer, than that he shall make the most of his situation, the principle applies equally to all; and, in like manner, is equally correct and beneficial in all its situations and circumstances.

Holding these principles in view, and assuming them as the basis of what is meant to be inculcated, we proceed to illustrate them in a more particular manner.

In the first place the utility, nay, the necessity of keeping the land dry, and preserving it from being inundated or flooded with water, is so obvious, that few arguments will be required in support of this primary principle. When land is allowed to remain in a state of wetness, which may be occasioned by sprouts, or springs, in the under-soil, or by rain-water stagnating on the surface, the earth gets into a sour state, which afterwards is detrimental to the growth of plants; and often, in the first instance, prevents either ploughing or harrowing from being successfully effected. Under such circumstances, the young plants, either corn or grass, get yellow or sickly, and never assume that vigorous, thriving aspect, which they maintain upon fields differently circumstanced. — Besides, manure has not the same effect when the earth is drowned, or even injured with wetness, as when it is dry and free from superfluous moisture. Under-draining is the only method of correcting the evils arising from sprouts, or springs, as will be afterwards more distinctly stated, and digging out the head-land, and what are provinci-

ally called *gun-furrows*, the only preventive against surface-water, when heavy falls of rain ensue. In fact, without attention to these important operations, arable land can neither be perfectly managed or full crops reaped from it. Perhaps the goodness or badness of farm management may be as correctly estimated by the attention shown to drainage, as by any mark whatever.—Where drainage is neglected, a sure proof is furnished, that many other branches of the art are imperfectly executed. Unless this branch of rural economy is assiduously attended to, the advantages arising from ploughing and manuring are only partially obtained.

In the second place, the benefit arising from keeping the land clean, is sufficiently discernible. Weeds, whether of the annual or the perennial sort, may be regarded as preferable creditors of the soil, who will reap the first advantage of manure, if allowed to remain in possession; their removal, therefore, forms an important object of the husbandman's attention. Without detailing in this place, the most suitable means of removing them, it may be stated, that according to the degree of success that follows the means employed, so will the goodness or badness of the husbandman's crops be regulated. If the strength, or nutritive powers of the soil be exhausted or drawn forth by weeds, or such plants as the soil naturally produces, it is impossible that artificial plants can prosper. It rarely happens, to be sure, that the aborigines are altogether extirpated; but upon the smallness of their number depends the returns which the soil can make to man, for the labor bestowed upon its cultivation.

In the third place, the necessity of restoring to the soil in the shape of manure, the powers drawn from it by artificial crops is acknowledged by almost every person. No doubt some heretical opinions have, at different times, been broached, concerning the utility of feeding land by generous manures: but these never had many votaries, and are now becoming so obsolete, that it would only be a waste of time to notice them. Manure in fact, is the most powerful agent in the hands of the farmer, and the attention bestowed upon collecting, preparing and applying it, constitutes an important branch of the art which he practices. Perhaps agriculturists are more behind, in the points connected with this third general principle than in others; and here, the utility of chemical knowledge may, in some respects, be estimated and recognized.

These three fundamental principles hang or fall together. Without laying land dry, neither the advantages of good ploughing, nor the benefits arising from manure, can be fully obtained. When any of the other principles are neglected similar effects will necessarily ensue. But when they are all acted upon; when the land is kept dry, clean and in good order, the husbandman may expect a suitable reward for the trouble and expense bestowed on its cultivation. An agricultural code of this kind is not only a true one, but has the particular merit of being simple and distinct; nay it has an advantage which few creeds possess; it may be understood by the dullest capacity. Were it carried into execution; were the operations of farmers regulated by its tenets, were their endeavours constantly directed to keep the lands in their possession dry and clean, and

as rich as possible, then the country would be progressively improved. In a word, these are the fundamental principles of agriculture, though several other things, such as a rotation of crops and the like, may be regarded as minor or inferior ones. All of them, however, are dependent upon the principles already noticed; because, were the fundamental principles rejected, the minor or inferior ones, could never be successfully carried into execution.

[From the Franklin Farmer.]

We thank the writer for the following; and as he offers the benefit of his knowledge and experience to any others disposed to engage in the culture of silk, we hope he will continue his communications. The statement of his own operations, as far as it goes, is encouraging to others; and if he will furnish facts applicable to this pursuit in Kentucky, he will thus render it an important service. There are many others who have made a good beginning in this new and promising branch of industry, and we hope they too, will contribute information calculated to promote the success of the business. We will gladly publish communications on the subject, showing the success of those employed in his enterprise or offering facts for the use of those who wish to do so.

PARL PLACE, NEAR BRANDENBURG, MEADE CO. }
KY., November 27, 1837. }

Mr. Editor—Sir—Although I have not had the pleasure of examining a number of the "Franklin Farmer," I have seen it spoken of in the highest terms by the "Cultivator" and "Silk Culturist," and am highly gratified to learn that such a publication has been established in Kentucky—a State in which I think there is a wide field for agricultural improvement; and it only remains for our farmers to read, with a view to profit by *what they read*, to rank with the first agricultural districts of the world.

There is one branch of national industry which I think it would be well to recommend to the people of this and some of the adjoining states, viz: that of the cultivation of the mulberry and the rearing the Silk-worm.

Under the impression that this State possessed advantages, both as to soil and climate, over many others of the Union for this business, I removed from the state of New York about twelve months since, with a view of establishing it here, and from the result of my experiments the last season, my expectations are more than realized.

On the 18th of April last, I *laid down* about 1,000 plants of the *morus multicaulis*, the produce of which is now more than 6,000, measuring from 5 to 8 feet high. I took at one time from the shoots from one tree—laid down, root and branch—9 lb. 4 oz. of leaves, some of which measured 14 by 15 inches.

I fed a few thousand silk worms the last season, the cocoons of which were of uncommon size, and equal in quality to those of any other country.

I am now erecting a cocoonery and shall extend the business as fast as circumstances will permit. Wishing not only to advance my own interest but that of my country also, I hope I shall not be long alone in this section of it engaged in

this great enterprise, and, any information I may possess on the subject, will be freely given to those wishing to embark in the business.

It is gratifying to the friends of the silk enterprise to see that the Legislatures of several of the states have already offered liberal bounties for its encouragement, which, in a public point of light, its importance demands, and will Kentucky be less liberal should the subject be brought before her legislature at the coming session.

I am, sir, yours respectfully,
H. P. BYRAM.

[From the Farmers' Cabinet.]

BEEET SUGAR.

MR. EDITOR:—I am not quite sure that beet sugar is profitable to be made (i. e. in strict accordance with the principles of political economy,) on a small scale: it is, in manufactories, to be conducted on a large scale. We predict, that it is to become a national branch of industry and produce; but this cannot be any hindrance or objection to the farmer's employing his leisure hours during the winter season, to the production of sugar for his own use, or, eventually, when it shall have become better understood, for the refineries.

For this reason I shall confine my present hints and observations to the producing of sugar on a small scale, with simple means and at small cost, particularly as there are so many throughout the country who have grown the beet root, and will, at all events, be desirous of making an essay at beet root sugar making; also, convinced as I am, that from among the number, must proceed that experience which is to become the basis of large establishments throughout the United States ere many years pass over. From all that has been done in the United States towards making beet sugar, little has resulted, as yet, but much could already be written on the subject that would be useful as a guide to others. This task I cannot assume, though deeply interested; therefore, I can only promise to describe how beet root sugar *can* be made.

PREPARATIONS FOR MAKING THE SUGAR.

The articles required for the most simple and ready mode of manipulating are:

1. A rasp for reducing the roots to pulp.
2. A defecating pan.
3. A filterer.
4. A boiling pan, similar to No. 2.
5. A cooling pan.

Skimmer, cloths, clais (or wicker frame work,) tub or tubs, and a variety of other small articles which will be required or not, just in proportion to the scale on which it is conducted. Such as will be required simply for *making sugar*, shall be described as we proceed.

The rasp being the first important implement, we will describe such a one as can be easily made, viz: a wooden frame, such as used for a grindstone. A circular piece of wood to form the barrel of the rasp, say one foot in length and the same size in diameter, or larger if you please, (the heavier the better.) Pass an axle through this piece of wood, and set it to the frame precisely as a grindstone, to be turned by a crank or pedal. Around the barrel or circular wood, nail on sheets of tin, perforated in the manner of a bread grater.

To the end of the frame towards which the circular barrel is to revolve, affix a small trough, or box, say nine inches wide by eighteen inches in length; inside of this box is to slide a block, which can be drawn up and pressed down with one hand, whilst the other hand is engaged in putting roots into the box through an opening on the top. The roots to be pressed against the tin grater as it revolves, and thus they will be torn into an impalpable pulp and fall into a tub or box placed under the rasp. After a person has once witnessed the producing of the juice from the root by a proper sort of rasp upon this principle, it will need no argument to satisfy him that the roots can be torn apart in every fibre and reduced to a pulp, by no other contrivance so effectually as the French rasp, which makes nine hundred revolutions per minute, when propelled by steam.

Let us now suppose we are about to make some beet root surgar.

1st. Clean the dirt from the roots by washing, or shaking well one against the other; the latter suffices here, as they come up very clean.

2d. Trim off with a knife the fibrous tape root and *all the crown* of the root, to get rid of all acrid substance.

3d. Rasp them as before described, and thus you obtain your pulp.

4th. Have ready a small frame of four pieces of strip, formed into a square, with its centre about nine by twelve, for light pressure. Lay this frame on a board, which board slants into or towards the tub in which is your pulp. On this frame, then place a piece of coarse linen crash or cloth, five times the size of the centre of the frame, and in the centre of the cloth—which of course will be the inside or centre of the frame—lay a shovel full of pulp, then folding the cloth up from the four sides, you have the pulp, enclosed as it were, in a square flat bag, which will yield under any pressure without bursting, and still retain safely the pulp.

5th. Press your pulp to obtain the juice. This is to be done under any sort of press or pressure that you may choose; the amount of juice obtained will be, of course, according to the amount of pressure; eighty-five per cent. of juice *can* be obtained from the root. A very simple plan for an experiment, is, to place the pulp in a long piece of cloth, spreading the pulp about six inches and roll the cloth up, making it four feet long, and wring out the juice by hand, aided by a stick in the centre, doubling the cloth and making fast both ends. If you have a press, place on the bed of it, a zinc, tin, or copper pan, larger than the square bags or wickers, (which latter we shall soon describe,) in order that it may not be injured by the pressure. The sides of this pan need not be over two inches in height. In the centre front of the pan, should be a break or spout for the juice to flow out into a tub beneath. This arranged, place a cloth filled with pulp on the pan under the press—on this cloth or bag of pulp, place a *clais* or piece of wicker work, similar to the top of a champagne wine basket, or ordinary wicker basket work, made square and flat. This wicker work is to prevent the pulp in the bags from clogging and bursting under the pressure, and to make juice flow easily and obtain the more of it from the pulp than you otherwise

could. On top of the wicker place another bag of pulp, then another wicker, then another bag of pulp, and so continue until your press is filled, when, by applying the pressure, you obtain the juice which flows into the tub under the press.

All being previously in readiness, not a moment should be lost after the juice is obtained, but hasten it into the defecating pan, which is placed over a naked fire, and may be an ordinary copper wash kettle, and proceed to

6th. Defecate the juice.

The juice is now in the kettle over the fire. Keep up a brisk fire until the juice is heated to 150° Fahrenheit, or so hot that you can but place your finger into it without burning it. At this moment is the time to be added, i. e. having ready some cream of lime, prepared by slacking a piece of pure clean lime *in hot water*, reduced to the consistence of cream; add to your juice at this point of heat, not more than one ounce in proportion to eight gallons of juice; this is, however, to be known better by experience and the state your roots are in. On such points as this, is your judgment to be carefully exercised. You must stir the lime thoroughly to mix it with the juice, and when you shall have done so, increase your fire, and continue your juice over it until it attains the boiling point, when your fire must be instantly checked or the boiler or kettle as instantly removed from off the fire, and the juice left for perhaps half an hour, or until it has become perfectly clear, and the deposit made in the bottom; then with a skimmer remove the black scum from the surface, and pour off the juice carefully into another pan, boiler or kettle, to be evaporated. If the juice has now, or previously assumed a dirty appearance, be not discouraged in your first effort; this is always the appearance of it until it changes to molasses.

7th. *Filtering* has not been recommended at this point, but I think it should be done. I will, therefore, describe the manner in which I performed it—to be referred to again—and leave those who essay to make sugar, to filter once only, or twice, as they may deem best. A box of a size proportioned to the scale on which you are working, (unless on a very large scale—in which latter case you will need many filterers, and of the usual size used in manufactories.) I used a flower pot of the capacity of two gallons, as having a hole in the bottom, being conical and of earthenware and readily obtained, it was most convenient and answered the purpose. Prepare a circular piece of wood to fit inside the conical box or pot—which may be square or round—perforate this block in every part, cover one side of it with a piece of linen cloth, then prepare a linen bag or cloth to place inside the filterer, and put the perforated block inside the bag, with its covered surface uppermost, and placing the bag inside the pot, forcing down the block, which is held above the bottom by the angle of the pot, and then drawing the bag over the top edges to the outside securing it, you have a very good filterer. Place in it and fill to within an inch or two of the top, *ANIMAL CHARCOAL*, (bones burnt or charred as wood is to make charcoal, except that these bones are burnt or baked in iron pots, hermetically closed during the baking,) *IN GRAINS*; because if in powder, it is not so good for various reasons, and is apt to wash

through the filterer. Upon the charcoal in the filterer you pour your juice, at first keeping closed the stop cock or hole (as the case may be,) at the bottom, and retaining the juice in the filterers for a moment, and when opened as it flows from the filterer, you run it into the pan or kettle again to evaporate. You can have as many filterers as you please, all in use at the same time, by having the stop cock of each over a spout which shall conduct the juice to the pan for evaporating.

8th. After filtering, *EVAPORATE* the juice to twenty-one° and then filter again, and again run it into the kettle in order to

9th. *CONDENSE* it to the crystalizing point, which is known by taking a small portion between the thumb and finger, after it has been reduced to molasses, and you may suppose it is near the point at which crystallization takes place, and drawing it out, if on cooling, it appears to snap, it must be removed and left to crystallize.

I beg to offer a few remarks here on this point, which my experiments have proved to me. 1st. If you make but a small quantity of sugar, as a pint, a quart, or I should think even a gallon, i. e. two gallons of syrup when it is at the crystalizing point, I should deem it scarcely possible to separate the molasses from the sugar after it has granulated. I am satisfied that it will require a large quantity to carry out all the manipulations as they should be to produce beet sugar with success or profit. No estimate of quantity, expense, or profit can be made from working on a small scale; quality of the beets and sugar may be proved. 2d. After the syrup has been, as supposed, reduced to the crystalizing point, and left in a shallow vessel in a cool place for a day or two, and it is found not to crystallize, provided that it has not been evaporated too much, you may easily make yourself acquainted with the proper point by resort to the following:

Take three or four saucers, and in each place one or two spoonfuls of your syrup, hold each one over a small flame, or a spirit lamp, and reduce each one a shade more than the other and all more than the syrup which you have taken them from, try them as directed and carefully note the appearance of each, and the white spots which arise during the experiment—place them all away for a day, so that on resorting to them, you can designate each and recollect its appearance when you are reducing it; or it would be better to note on a paper relative to each, then if you find any or all of them have granulated, take the one which gives the strongest and best formed crystal for your guide, and reduce your syrup to the same point that you did this sample, and you will scarcely fail to make sugar to the amount of fifty per cent. of your syrup, and the remainder will be molasses. The peculiar odor which most of the syrup and sugar has, I cannot tell how you are to remove; but I have seen sugar made here without it. If the process is carefully and skillfully conducted and the roots good, there will be but little of it. One thing is certain, from constant tasting of the juice and sugar, you become reconciled to this peculiarity, and many who would make it for their own use, would not regard it. Tastes are arbitrary, and can we say that if we had eaten beet sugar all our lives, (without being refined,) with this peculiar odor, we would

not reject cane sugar if presented to us for our use, because of its peculiarity to the taste and smell?

J. S.

(From the Genesee Farmer.)

A SERIES OF EXPERIMENTS,

Together with their results—accompanied with remarks.

1st. In order to ascertain, if practicable, an easy method of cleansing wheat intended for seed, especially of separating oats from spring wheat, brine was made by the solution of salt in water, just strong enough to bear up an egg, and cause a very small part of it to rise and float above the surface of the brine. Into a pail, filled nearly full of brine thus prepared, two or three handfuls of well ripened and plump oats were dropped at different times. None of them sunk—all floated on the surface of the brine, and were taken off with a skimmer. Spring wheat is apt to be infested with oats, and this experiment suggests an easy and sure method of cleansing so much of it as is intended for seed. It may be proper to remark here, that a parcel of oats was dropped into water not impregnated with salt, and that all of them sunk. That there is no danger of injuring the seed, by dropping it into brine strong enough to bear up an egg, will appear from experiments hereafter to be recorded.

2d. A parcel of chess seeds was dropped into the brine used in the above experiment, and many of them sunk. From this it appears, that chess cannot be separated from wheat, as oats may be, by dropping into brine.

3d. Twenty kernels of spring wheat were put into the ground, which had been steeped 15 minutes in brine strong enough to bear up an egg. Eighteen of them came up.

4th. Twenty kernels of the like wheat were put into the ground, which had been steeped 24 hours in brine strong enough to bear up an egg. Seventeen of them came up. Although in these two experiments there was a failure of coming up, in one, of two, and in the other, of three kernels, yet as these two parcels, differing so much as to the time they were in the steep, came up promptly and simultaneously, came up too with thrifty blades, and blades equally so, I can scarcely impute this small failure to the effect of the brine. It is, I think, safe to prepare seed wheat, whatever may be the object, by steeping it at least 24 hours in brine strong enough to bear up an egg. How much stronger the brine might be, and do no harm, or how much longer the steeping process might safely be continued, my experiments do not show. There can be no doubt, that ley, produced by leaching ashes, and made strong enough to bear up an egg, would answer as well as brine for separating oats from spring wheat. Nor can it, I think, be doubted, that, whatever might be the object of steeping, it would be equally safe, as well as equally efficacious, as a steep for seed wheat. Many years since, to prevent smut, I steeped a parcel of seed wheat in a very strong ley, taken from a pot-ashery. This was too strong. It destroyed the vital powers of the seed, produced a failure, and rendered it necessary to sow again.

5th. It being reported that scalding seed peas, by the application of boiling water, would secure the crop from damages by the pea-bug, the

object of this experiment, together with the three following, was to ascertain whether boiling water could be applied to peas, without endangering their vital principles. For this purpose, twenty kernels of peas were planted, on which boiling water had been poured and turned off immediately. Nineteen of them came up.

6th. Twenty kernels of peas were planted, on which boiling water had been poured, and been kept on them one minute. Nineteen of them came up.

7th. Twenty kernels of peas were planted, on which boiling water had been poured, and had been kept on them three minutes. Nineteen of them came up.

8th. Twenty kernels of peas were planted in their natural condition, no hot water having been applied to them. The whole twenty came up. It will be seen here, that of the parcel of seeds which had not been scalded, all came up, while in connection with each of the other parcels, there was a failure of one kernel. Be this accounted for as it may, the experiments have shewn to my satisfaction, that boiling water may be applied to peas, and be kept on them at least 3 minutes, without any material detriment to the seed. It should be remarked here, that the several parcels came up simultaneously, and without any perceptible difference as to thriftiness and symptoms of good health. The parcel which had not been scalded, did not appear, in any respect, to have the advantage of the others, except that *all* came up, while, in connection with each of the others, there was a failure of one kernel.

The manner in which these, and all my other hot-water experiments were conducted, was, to put twenty kernels into a large coffee cup, sufficiently large to contain half pint or more, and then fill the cup about half full of boiling water, taken immediately from a kettle hanging over the fire. The heat, I think, must have been as intense, as would be that produced, by pouring two pailfuls of boiling water into a tub containing one bushel of peas, or other grain. In each of my experiments, the seed was planted immediately after the hot water was turned off. If peas are to be scalded for the use of field culture, it will doubtless be prudent to spread them for cooling, as soon as they are separated from the hot water. It may be advisable too to sow them as soon thereafter as practicable, though, if they are readily cooled, as they may be by spreading, I should hardly think it necessary to be in a hurry to sow.

9th. Twenty kernels of corn were planted, on which boiling water had been poured, and turned off immediately. Eighteen of them came up.

10th. Twenty kernels of corn were planted, on which boiling water had been poured, and kept on one minute. Fifteen of them came up.

11th. Twenty kernels of corn were planted in their natural condition, no hot water having been applied to them. The whole of those came up. In regard to these experiments of the corn, I am constrained to remark, that they proved to my satisfaction that hot water is a dangerous thing to be applied to seed corn. For although three-fourths of the parcel which had been kept in hot water the longest, viz. one minute, eventually came up, yet they came up very tardily, not so soon by two or three days, as those which had

not been scalded. The blades, when they came up were feeble, and of sickly aspect, differing entirely from those to which no hot water was turned off immediately the same indications were no less real and scarcely perceptible, yet not quite so striking. These too were, in coming up, considerably behind those which had not been scalded, and their blades, when they did come, were manifestly inferior. The results of these experiments were such as to leave no doubt in my mind, that the seed had received an injury from the hot water. Contrary to opinions heretofore entertained by myself, and perhaps by many others, I now believe it dangerous to apply hot water to seed corn. Instead of hastening the progress of its vegetation, as has been supposed, it probably has the contrary effect, besides distempering and debilitating its vital powers. But that it is not so in regard to peas, the experiments above recorded show very satisfactorily. The scalded peas came up as readily, and were as thrifty as those which had not been scalded.

12th. Twenty kernels of fall or winter wheat were put into the ground, on which boiling water had been poured, and kept on one minute. None of them came up—all failed. This single experiment indicates danger in applying hot water to seed wheat. It will not endure the effect of boiling water remaining on it one minute. Scalding seed wheat at all should, I think, be regarded as a dangerous experiment.

13th. Twenty kernels of wheat, as badly blasted, shrunk and shrivelled as I ever saw, were put into the ground. Nearly all of them came up. This experiment proves that badly blasted wheat will answer for seed, or that it will germinate and grow; but it by no means proves that such wheat should be used for seed, except in cases of necessity. It is unquestionably a true doctrine, and a doctrine of universal application that the more perfect the seed the more perfect the progeny may be expected to be. No other than wheat of the first quality should be used for seed, when such can be obtained.

Here ends a series of experiments, the whole of which were commenced and finished by myself, on the twentieth day of September last, only remaining at that time to be longer waited for.

Oct. 27th, 1837.

DAN BRADLEY.

[From the Farmers' Cabinet.]

RAISING CHICKENS.

Auburn, Frederick Co. Md. Nov. 23d, 1837.

I very much fear you will begin to think me either an epicure or the son of an epicure, it being only a short time since that I served you up a mess of bacon, and now come with a dish of fowl. It has been said it is not good for man to be alone. Bacon, although good alone, is very much better when accompanied with a good round fat pullet. But it is not a pullet that I am about to serve up to you at present, but her brother, though 'in an altered form, as you will learn in the sequel. It is a fact known to every traveller, that there is no dish presented before him half so often as that of chicken, served up in every form of which it is capable, broiled, fried, stewed, baked, or boiled, and it is a fact equally well known that there is no dish so often turned away untasted, in consequence of its disgusting appearance of bad culinary preparations. I al-

lude of course to such as we too frequently meet with on our public tables and watering places, (Bedford itself not excepted.) How often is the ears of the hungry and weary traveller assailed the moment the stage draws up to the inn, by the dyeing shrieks of the rooster that had but the moment before been picking a scanty subsistence from the dunghill, and in a few moments more graces the head of the table, looking more like that well known waterfowl vulgarly called a fly-up-the-creek, who is indebted alone to the length of his legs and neck for a subsistence, than what it really is. But I have promised to give you something even better than a fat pullet, and I shall now proceed to serve it up; I mean then that favorite dish of the ancient Romans, the "Gallas Spads or Capon," or more plainly the cock altered by castration, and in such high repute was it, that it generally graced the board of that most excellent judge of good eating, Lucullus, and if Shakspeare is to be believed, it was a tit bit not only with Jack Falstaff, but with the Justice who is represented—"In fair round body with good capon lin'd." In England, at the present day, at every respectable eating house, the first thing that greets the eye of the traveller and heads the bill of fare, is a capon, either boiled or baked. In France they are made doubly useful, not only as an article of food, but a means of production; if I may be allowed the expression they are used as a foster mother for raising chickens, which they do much better than the hen, owing to the large size and thick coat of feathers. The poulterers use a considerable number of them for this purpose,—the moment the hen has hatched her brood they are given to the capon, who rears them with all the care of the mother, the hen is cooped and fed until she gains her flesh and strength, and then turned out to lay and set again; in this way the poulterer is enabled to raise a large number of chickens from half the number of hens. The capon at market sells higher than any of our domestic fowls. What is the reason then in our country where good living is so highly prized, the capon is seldom or never seen?—Should you travel from Maine to New Orleans, you would probably never have this question put to you at table, "Sir, shall I help you to a fine piece of capon?" I would by no means attribute this neglect of one of the finest dishes in the world to obtuseness of palate, but rather to a want of the necessary information as to the manner of performing the operation on the cock. To obviate this I will subjoin directions, by the observance of which a man of common adroitness can make two dozen capons in an hour. Lay the chicken before you on his left side, with his head towards your right hand, let an assistant hold him by his head and legs extended; with a sharp knife make a transverse incision of one and a half inches or more in the side just below the ribs. Insert the fore finger, and near the middle of the body, at the distance of about three quarters of an inch from the incision, near the spine, will be found the testicles, which may very easily be removed by the thumb and finger; sew up the orifice and daub a little tar over it to keep off the flies. Care should be taken in cutting through the several integuments lest the viscera be wounded. The cock should be about half grown. Not one in a hundred will die if the operation be properly per-

formed. After a fair trial both of the bacon and capon, should you relish them, I may be induced at some future time to serve you up some other dish, which I only hope may be found as agreeable to your numerous readers as was the long and learned dissertation we had some time since upon Hollow Horns.

With my best wishes,

I am respectfully your ob't. serv't.

J. W. J.

MANGEL WURTZEL.

To the editor of the Friend—

Knowing thy interest in agricultural affairs, and thinking many readers of the "The Friend" would feel a similar interest in the very interesting particulars detailed in the accompanying statement; I send thee the following relation of them, drawn up at my request by the friend himself, and of the accuracy of which there can be no doubt. I think the produce of the cow beet so great and so well adapted to feeding cattle, particularly on small farms, that I am desirous of giving a wider circulation to the accompanying particulars in order to induce our country friends to give them further trials.

C. W.

Particulars relative to a crop of beets, (Mangel Wurtzel,) raised in the season of 1837, on the farm of Isaac C. Jones, called Rockland, on the banks of the river Schuylkill, in the neighbourhood of the city of Philadelphia, viz:

Nett measure of the ground on which they stood was 67 square poles. Add for the headland or turning ground, 4 do. Total, 71 square poles, being nine less than half an acre.

The produce on the above mentioned ground, excluding the leaves, and confining it entirely to the roots, amounted to four hundred and thirty bushel, agreeably to the measurement of Joseph Berry, the farmer who attended to their culture for the said Isaac C. Jones throughout the season. On weighing a portion of these beets, it was ascertained they would average fifty-five pounds per bushels, making an aggregate of twenty-three thousand six hundred and fifty pounds, or a little over ten and a half tons (of 2250 pounds each,) being at the rate of twenty-three and two-third tons to the acre, or nine hundred and sixty-nine bushels.

Many of the above mentioned beets weighed from seven to thirteen pounds. One that was particularly measured and weighed, produced the following result, viz: Twenty-seven inches in circumference, and weighed thirteen and a half pounds.

The produce would have been considerably increased had not many of the seed proved defective, and the plan of transplanting resorted to; but the latter, if well done, answers an excellent purpose.

The above mentioned ground was accurately measured by said Joseph Berry, and the subscriber, this 11th month, 8th, 1837.

ISAAC C. JONES.

EGYPTIAN COTTON.—The Macon Messenger of the 30th ultimo, speaking of a sample of this cotton left at that office, raised from the seed received from our representative in Congress, Col. W. C. Dawson, says—"The staple is very fine

and long, almost equalling the sea island cotton, and we are told the plants are very productive of bolls—the quantity of cotton in each is not considered equal to that of our common kinds, but from the large number, the amount is very great. From twenty-one stalks he had gathered 15lbs. cotton, and believed by the end of the season they would exceed a pound each. At this time there were remaining as many as one hundred bolls to the stalk, most of which would mature. The staple has a slight tinge of yellow, and it is very beautiful. Should it continue as productive as it is at present, it will be a valuable acquisition to our planters."



MARYLAND AGRICULTURAL REPOSITORY.

Robert Sinclair, jr. & Co.

Light near Pratt street Wharf, offers for sale,

CYLINDRICAL STRAW CUTTER, adapted to horse or manual power. These boxes are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great despatch; Thus enabling the farmer to realize a profit by feeding to his cattle his corn-stalks, which would otherwise in a great measure be lost. As regards quality and effect, these machines now stand A No. 1, no cutting machine having been introduced to the public equal in power.

The Size and Price are as follows, viz,

11 inch Boxes,	\$30,	extra Knives for do. per sett	\$4,
14 " "	\$45,	" " "	5,
20 " "	\$75,	" " "	8,

CORN SHELLERS—hand machines \$20, horse do. 40. 1500 PLOUGHS, of various sizes and patterns, among which are the SOUTHERN FLUSHING and CULTIVATING PLOUGHS; also SIDE HILL PLOUGHS, DOUBLE MOULD BOARD PLOUGHS, &c. Prices 4, 6, a \$15 each.

CULTIVATORS for CORN, COTTON and TOBACCO. Prices from 5 a 6 50 each.

COTTON GINS, made to order at 50 a \$150, each.

DRILL and SOWING MACHINES at 6, 20 a \$100 each.

FARMING and HARVEST TOOLS of every description, FANCY and COMMON GARDEN TOOLS, Ox YOKES and BOWS, GRUBBING HOES, BRIAR HOOKS, CAST-STEEL AXES &c.

SEED DEPARTMENT.

In this department is constantly kept for sale, SEED GRAIN and other FIELD SEEDS, SEED POTATOES, and an extensive assortment of GARDEN SEEDS, selected from the most respectable European Seed marts and from our SEED GARDENS near this city.

TREES AND PLANTS.

Supplied from R. Sinclair, Senr's extensive NURSERIES in the vicinity of this city, where TREES of good size can be procured and warranted to produce as represented.

Orders from persons residing at a distance will be promptly and carefully attended to when the cash is remitted by letter or satisfactory reference furnished.

CONTENTS OF THIS NUMBER.

Compliments of the season—Notice in regard to memorializing the legislative bodies in aid of agriculture—cure for hollow horn—large crops of corn, the effect of manure—diseases of sheep and remedies therefor—beehive and bee-management—shaker pig-stye and barn—transmutation of grain—theory of agriculture—silk culture in Kentucky—manufacture of beet sugar—experiments in soaking grains—on raising chickens—culture of mangel wurtzel—Egyptian cotton—advertisements, &c.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	—
CATTLE, on the hoof,.....	100lbs	6 00	7 00
CORN, yellow.....	bushel	76	78
White.....	"	75	78
COTTON, Virginia,.....	pound	11	—
North Carolina,.....	"	—	—
Upland,.....	"	10	2
Louisiana—Alabama.....	"	—	—
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR&MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's.....	"	—	—
Super Ho. st. from stores	"	9 25	9 50
" " wagon price,	"	9 00	—
City Mills, super.....	"	9 25	9 50
" extra.....	"	9 75	—
Susquehanna,.....	"	—	—
Rye,.....	"	6 50	—
Kiln-dried Meal, in hhd.	bhd.	23 50	24 00
do. in bbls.	bbl.	5 00	5 25
GRASS SEEDS, wholes. red Clover,	bushel.	5 50	6 00
Kentucky blue.....	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	—	3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 25	6 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	—	3 50
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGE,.....	pound.	3	4
RYE,.....	bushel.	90	—
Susquehanna,.....	"	—	none
Tobacco, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	—	—
" ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	2 00	2 10
Red, best.....	"	1 85	1 95
Maryland inferior	"	1 68	1 85
WHISKEY, 1st pf. in bbls.....	gallon.	43	44
" in hhd.....	"	42	42½
" wagon price,.....	"	bbls	39
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	—
To Wheeling,.....	"	1 75	—
WOOL, Prime & Saxon Fleeces,.....	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured.....	pound.	13	13
Shoulders,..... do.....	"	10½	10½
Middlings,..... do.....	"	do	do½
Assorted, country,.....	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"	—	—
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old.....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 87½	—
CHOP RYE,.....	"	—	1 75
Eggs,.....	dozen.	18	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,.....	"	6 50	—
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ————No. 2	"	9 00	10 00
No. 3,.....	"	4 75	—
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	Farmers Bank of Virgi. 1½
Branch at Baltimore,.....	do	Bank of Virginia,..... do
Other Branches,.....	do	Branch at Fredericksburg, do
MARYLAND.		Petersburg,..... ½
Banks in Baltimore,.....	par	Norfolk,..... 1½
Hagerstown,.....	¾	Winchester,..... ½
Frederick,.....	do	Lynchburg,..... 1½
Westminster,.....	do	Danville,..... do
Farmers' Bank of Mary'd, do		Bank of the Valley, .. ½
Do. payable at Easton, .. 1		Branch at Romney, .. do
Salisbury,..... 2 per ct. dis.		Do. Charlestown, .. do
Cumberland,..... 3		Do. Leesburg, .. 1½
Millington,..... do		Wheeling Banks, .. ¾
DISTRICT.		Ohio Banks, generally 6½
Washington,.....		New Jersey Banks gen. 5
Georgetown, } Banks, ½ p.c.		New York City, .. ½
Alexandria,.....		New York State, .. ¾
PENNSYLVANIA.		Massachusetts, .. ¾
Philadelphia,.....	¾	Connecticut, .. ¾
Chambersburg,.....	1	New Hampshire, .. ¾
Gettysburg,.....	do	Maine, .. ¾
Pittsburg,.....	¾	Rhode Island, .. ¾
York,.....	1	North Carolina, .. 5
Other Pennsylvania Bks. 4		South Carolina, .. 8½
Delaware [under \$5].... 6		Georgia,..... do
Do. [over \$5]..... 10		New Orleans,..... 12
Michigan Banks,..... 10		
Canadian do..... 10		

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleyville, Halifax Co. N. Carolina.

SYDNEY WELLER.

Nov. 9, 1837—21

3t

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address

s 29

EDWD. P. ROBERTS, Baltimore, Md.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultiva- Threshing Machines, with
tors or without horse power
Superior Grain Cradles F. H. Smith's Patent Lime
Weldron Grain and Grass Spreaders
Scythes A great variety of Ploughs
Farwell's Patent Double of all sizes, with wrought
Back Grass Scythes and and cast iron Shares
Snathes Swingle Trees and Hames
Hay Forks and Rakes Also, a great variety of
Manure Forks, Shovels, &c. Plough Castings, con-
English Corn Hoes stantly on hand for sale
Superior American made by the piece or ton. All
Casteele Hoes, with han- kinds of Machine Castings
dles made to order; repairs on
Wheat FANS, of various Ploughs and Machinery
sizes done at short notice
Mattocks, Picks and Grub- Liberal discount made to
bing Hoes those who purchase to
Corn Shellers sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardiness, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

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The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 36.

BALTIMORE, MD. JANUARY 2, 1838.

Vol. IV.

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: JANUARY 2, 1838.

In commencing the new year, we tender to our subscribers our heart-felt wishes for their welfare and happiness, and trust that *good health* may lend its wonted zest to their exertions throughout the coming season; for of all earthly blessings none can compare with it in the degree of pleasure it imparts to man, in enabling him to pursue his avocations with an elastic step, a generous flow of spirits, and a heart impressed with a high sense of gratitude to the Giver of All Good. Worldly wealth may procure for man all that human vanity, or a sensual appetite could desire; but without health, the power of enjoyment is denied him, and the possession of the means of gratification, but serves to remind him how insignificant an acquisition is the world's gear, "when unaccompanied by physical capacity." But while we thus offer up our aspirations, let us not omit to tender the hope also, that each and all may, by their conduct, testify that the blessings which we bespeak for them are as well deserved as sincerely invoked.

THE ALBION—We observe in the *Albion*, published in the city of New-York, of the 23d ultimo, that persons becoming subscribers to that journal, from and after that date, will be presented with a copy of two superb plates, that have been published in the course of the last year. These plates are—1st. a *view of the new Houses of the British Parliament*; and 2d. *Miss Ellen Tree* in the character of *Ion*. The price of the *Albion*, is six dollars per annum, payable in advance, and we take unfeigned pleasure in saying, that it is one of the best conducted journals that we have ever had the pleasure of reading, containing as it does the very *essence* of all the best British periodicals, together with well digested and authentic foreign and domestic news. Indeed, we know of no paper which we read with more profit and delight, nor of any where there is more expansive grasp of thought, brilliant display of manly intel-

lect, or where the lover of polite literature can so well be accommodated. To the American statesman and politician, its notices of the debates in the British Parliament, is of the very first importance, as in no other work published in America, are there to be found such copious extracts of the doings of the legislature of our father-land.

STOCK—As this is a trying month upon beasts of all kinds, the farmer should see that those who have charge of his stock, do not neglect their duty. Without the head of an establishment gives a vigilant supervision—without he rigorously enforces his orders, and personally attends to their execution, there are but few who have usually charge of such duties, that are influenced by moral considerations, and the consequence is, that where the master depends upon others to carry his views into execution, the work is indifferently done and the stock suffer. Regularity for feeding is almost as necessary as provender, and without the beasts get full supplies of wholesome water at this season of the year, what they do eat does them much less service. For the milch cow, water is almost as essential as slops, or succulent food; for without she has free access through the day to water, she will invariably fall off in her milk. In all cases where the thing is practicable, the farmer should provide a spring, or flow of running water, in his barn-yard, where his stock may enjoy it without stint, and whenever the earth is covered with snow, he should be mindful to place in a trough, accessible to all, either chalk or clay, one or the other being necessary to assist digestion and correct the crudities in the stomachs of most animals when pent up.

PORK WANTED.

We observe by the Danville, Va. Reporter of the 22d ultimo, that *two thousand hogs* are wanted by the citizens of that place; that "they have been on short allowance during the whole season, and if some kind *drovers* do not come to their aid, their rations must be wholly stopped." "Indeed," says the editor, "in plain English, *we have no meat*, and we hear of none coming to our market."—The notice concludes that 2,000 hogs would find in that market fair prices and a rapid sale.

We notice this *fact* for the double purpose of calling the attention of *drovers* to it, and of awa-

kening the agriculturists in the region of Danville, to the propriety of providing, another year, against a contingency so annoying to the appetite as is *short commons*, and withal so humiliating to the pride of the husbandman, as to be compelled to depend upon distant supplies for so essential an article in every larder. The farmers in the vicinity of Danville have only to *will* it, to secure as much pork as will meet their demands year in and year out. They have only to procure a few sows and a good boar of the proper breed, and to provide their hogs with a clover lot of a few acres communicating with a woods, to make hog raising not only an easy, but a profitable business. We hesitate not to affirm that there is no farmer who can spare for such purpose, a clover lot of fifteen acres, with the advantage of a range of the woods, who may not raise from twenty to thirty hogs; and that from May till first of October they will keep in fine growing order, without any additional expense or trouble. Those who wish to economise their corn in fattening should be careful to plant on every third hill and second row of corn, a few pumpkin seeds. These without materially diminishing the yield of corn, will, by early fall, produce as many pumpkins as will not only feed the hogs for the first two weeks of their being penned up, but furnish a supply of wholesome food for the milch cows throughout the fall and most of the winter. But for both hogs and cows they should be *cooked*, as that process not only renders them more nutritious, but prevents their scouring, and consequently adds greatly to their fattening quality.

It should be a matter of pride with every farmer to raise his own hog meat, and surely when he can do it at so small an amount of expense and trouble, he should not hesitate to make the effort, as it is alike called for by true economy and the comfort of his family.

SUGAR CANE.

We have received, says the New Orleans *Bulletin*, of the 29th Oct., a bundle of stalks of sugar cane, from the plantation of SAMUEL PACKWOOD, Esq. below the city. They are of the most luxuriant growth, measuring thirteen feet in height. In one of them as many as twenty-two joints were counted. The letter accompanying the cane, describes it as a fair specimen of the field from which it was cut; stating that the crop

was yielding 3 hhd. per. acre, and that 3 acres were sufficient to supply the mill during a day and night, although they were making ten hog-heads every twenty-four hours. This is an astonishing yield, even in the most favorable seasons; and if planters generally can boast of the same productiveness in their fields, they will not have much to apprehend from the embarrassments of the times, or reason to complain of them.

Charleston Mercury.

[From the Maine Farmer.]

THE HARVEST—THE CRADLE.

MR. HOLMES:—The wise and liberal encouragement given by this State to the farmers, to bring into view its ability to furnish bread for its population, has been well received, and will probably produce the end proposed—free the State from the annual expenditure probably of 900,000 to 1,000,000 of dollars, according to the season, for the purchase of flour.* The importation has drained our country of specie, or its equivalent, has misapplied its labors, and diverted it from that channel, so essential for the supply of food for our existence, to other less profitable objects.

It is the purpose of this communication, to offer to the growers of grain, but particularly of wheat, a mode of reaping it, which may save a sum equal to, if not greater than, the bounty offered by the State.

It must be evident that to harvest such an increased quantity of wheat, as from present appearances will be grown this year, will take more labor than may at first be supposed; and must enhance the price of labor, or cause the wheat to be reaped out of season, to the material injury in the quality from what will be shed in the act of reaping and housing it. Let us suppose the bounty to amount to 96,000 dollars, and that 6 cents per bushel as the amount of bounty, there will be 1,600,000 bushels, and it will take 160,000 days' work to reap them with the sickle; allowing 20 bushels to the acre, and that half an acre is reaped with the sickle. The proposed saving is substituting a scythe, with a bow or cradle on the snail, instead of the old fashioned heavy cradle over the scythe. With this scythe a good mower will reap two acres in a day with more ease than the half acre with the sickle. The labor in this case saved will be 120,000 days, which must exceed the bounty to be paid, and from my own experience for 6 years, the wheat can be placed in the best state for gathering and binding.

The scythe so fixed is described as follows:

The preparation of the snail.—A staple is to

*It is estimated that in the last year about 20,000 bbls. of flour have been brought into and through Hallowell, Augusta and Waterville, for the consumption of the counties of Kennebec and Somerset, containing a population of 62,377. These two Counties may be considered as agricultural, and needing a less supply of it on an average than the whole State, but if we make our estimate from this, the population of the State being 475,451, will take 150,000 barrels for its support, which at \$10 per barrel is equal to \$1,500,000. In common seasons the price of flour, and of course the expenditure, would be under this valuation of 10 dollars.

be inserted in the inner part of the snail, about $4\frac{1}{2}$ inches above the ring that secures the scythe.

A hole is to be made through the snail from the upper part of it, about 3 inches above the ring, this is for the upright stake or staff, that supports the bow.

Another hole is to be made in the upper part of the snail to receive the smaller end of the bow. This should be about 23 inches above the other hole.

The Staff is to be made of a stiff stick, as it is to give strength to the bow, and enable it to support the weight of the grain. In wheat the top should be as high as the lower end of the ear, in oats a little higher.

The Bow is to be made of a supple but tough twig.

The larger end $\frac{3}{4}$ of an inch in thickness. This end may be reduced a little, and then put into the staple.

Then secure on the heel of the scythe, bend it upwards, making the bow project about 6 inches beyond the heel or back part of the scythe, then bend it over to the top of the staff, into a crotch left to receive it, then the small end is to be secured in the hole next the nib.

There is a space between the staff and the swell of the bow, through which the grain may pass.—To prevent this a string is to be used. Tie the end of it to the lower part of the staff, then pass it to the middle of the swell of the bow, secure it there, and then pass it to the top of the staff, and secure it there.

A short trial will regulate a man's practice in the use of the above. If he is a good mower and can leave a snug swath, and not leave scattering grass on the ground where mowed, he will make a good reaper. At the end of the strokes in cutting the grain, there should be a slight elevation of the heel of the scythe, and a little cant in withdrawing of the scythe. This course will leave the grain in a good state for gathering and binding, and as good as when reaped with a sickle.

To this I add my practice in binding the sheaf. The English use the grain for bands, but whatever is used, the practice is to prepare the bands, then rake up together what is needed for a sheaf, and take the ends of the band in each hand, lay the band on the top of the grain, pass the hands under it till they meet, turn the grain up, and secure the band.

I have been informed this has been a practice in some part of Connecticut, and that one good hand will bind as fast as one can reap with the sickle.

In England where division of labor has been so profitable, a boy makes the band, and a man binds the sheaf as fast as one man will cut down the grain. I never made the comparison, but am satisfied this is a quicker mode than the old one.

CH'S VAUGHAN.

Hallowell, July 14, 1837.

[From the Jeffersonian.]

AGRICULTURAL PREMIUMS.

The Dover, N. H. Enquirer of the 5th inst. contains the list of premiums awarded at the annual Fair and Cattle Show of the Strafford county Agricultural Society, holden Oct. 17th. The exhibition of crops gives substantial evidence, that, with due energy in cultivating the earth, the husband-

man is always sure of reaping a rich reward for all his labors.

The 1st premium for one acre of wheat, was awarded to Joseph Pearsons of Moultonborough, he having raised $41\frac{1}{2}$ bushels.

The 2d premium was for a crop of 34 bushels and 30 quarts.

The 3d, was for a crop of 34 and a half bushels.

The first premium for the best acre of corn was awarded to Rufus Parish, of Gilmanton, whose yield was 136 bushels and 20 quarts. This gentleman has received the first premium on corn for many years, the amount raised each year being nearly the same as that of the present year.

The 2d premium was for a crop of 104 bushels and 26 quarts.*

The 3d, was for 102 bushels and 30 quarts.*

Premium for the best acre of oats, 84 bushels.*

Do. do. potatoes, 455 bushels.*

The premiums with this mark * were awarded to Mr. Paul P. Pillsbury of Tuftonborough, who also received one premium on butter, and two on cheese. The whole premiums received by this individual amounted to \$35.

It must be confessed that some of the crops exhibited at our Cumberland County Fair appear rather small, compared with the above. The only premium on corn here, was for a crop of 63 bushels. No wheat was offered for premium; why, we are not informed.

[From the N. E. Farmer.]

MARL.

It would be well if every cultivator was aware of the important fact, that whoever finds marl, finds a mine of great value. It is one of the best and most general manures in nature—proper for all soils and all crops. Marl is usually found under moss or peat, in low and sunken lands, and especially nigh the sea or large rivers. It has been sometimes discovered by ant hills, as these insects bring up small pieces of shells from their holes. It may be known by the application of a mineral acid, and even good vinegar will cause an effervescence.

"To find the composition of a marl, pour a few ounces of diluted muriatic acid into a Florence flask; place them in a scale and let them be balanced: then reduce a few ounces of this dry marl to powder; and let this powder be carefully weighed, and gradually thrown into the flask, until after repeated additions, no farther effervescence is perceived. Let the remainder of the powdered marl be weighed, by which the quantity projected will be known. Let the balance then be restored. The difference of weight between the quantity projected and that requisite to restore the balance, will show the weight of air lost during the effervescence. [That air proceeds from calcareous earth alone, which contains forty-four per cent. of this carbonic acid air. Suppose five hundred grains of marl lose forty-four grains by the escape of air, then that marl contained one hundred grains, or one-fifth part of the whole weight of limestone.—T. G. F.] If the loss amount to twenty or twenty-five per cent. of the quantity of marl projected, the marl essayed is calcareous, or marl rich in calcareous earth. Clayey marls, or those in which the argillaceous ingredient prevails, lose only eight or ten per cent. of their weight by this treatment, and sandy marls about the same pro-

portion. The presence of much argillaceous earth may be judged by drying the marl, after its being washed with spirit of salt, when it will harden and form a brick.—[*Domestic Encyclopedia*.]

[From the Genesee Farmer.]

MANAGEMENT OF "HARD-PAN" SOILS.

While we present a few remarks on the above subject, in reply to our correspondent M. S. in the 46th No. of the Farmer, we shall at the same time most gladly give place to any communications from those of our farming friends who have been more acquainted with the management of such soils than ourselves.

Very different soils are in different places called by the name of hard-pan. The general character of all, however, is argillaceous, or clayey, and it is to this substance that its tenacity and difficulty of working is owing. In some places it appears as indurated clay, in others as clay slate or argillaceous shale, in others as clay filled and compacted with hard smooth pebbles, and again it is seen passing into calcareous shale. Every where, however, it is marked by the same hardness and difficulty of working, the same restiveness of moisture and danger of injury from surface water, and the same liability of having winter grain and clover roots frozen from the ground in the winter or spring.

In preparing such soils for cultivation, the first thing is to free them from the surplus water, and this can only be done by draining. Where the nature of the soil will admit, covered drains are far the best, as drying the earth more effectually, and offering no obstacle to cultivation, but experience in England and Scotland has shown, that where the hard-pan substratum approaches or appears on the surface, covered drains are of very little use, the impervious nature of this soil preventing the water finding its way to the drains readily, and stagnant surface water sometimes remaining for several days within a few feet of such drains. Open surface drains are therefore preferred, and when properly made, and skilfully adapted to the make of the ground to be drained, they are generally sufficient to free the surface from stagnant or standing water.

Drains for this purpose must be adapted to the quantity of water, or the surface they are intended to free from water, and should always be sufficiently capacious and near to each other to allow the moisture to pass off rapidly. In extensive tracts of nearly level land they can be shaped by the plough, the land being thrown into beds of proper width, and if the sides are smoothed and graded they will usually soon be tufted over and no loss of surface be sustained when lands are laid down to grass.

The difficulty in cropping hard-pan lands, when properly freed from surface water, lies in the hardness and tenacity of the soil, and the quickness with which, owing to the fineness of its clayey particles, it becomes compact and impenetrable to the roots of plants, after it has been loosened by the plough. This difficulty can only be removed by changing the nature of the soil, or the addition of such ingredients as shall prevent this tenacity and cohesion. Long manures thoroughly turned in, benefit such soils, but it is only for a short time; and the only permanent cure appears to be the incorporation of a sufficient quantity of

sand and fine gravel, if calcareous so much the better, to overcome the tenacity of the clay and its natural tendency to consolidation, and render it friable and easy of culture, at least for the depth of a foot or more from the surface. We have known land of the worst clay or hard-pan quality, made first rate by deep digging, the incorporation of gravel and manures, and thorough draining of surface water; and similar results might be expected wherever the same system should be adopted; and this plan has been extensively carried into effect in altering the character of soils in foreign countries. Whether it would repay the expense, in ordinary cases, in this country, where good lands are so plenty and cheap, must be determined by the owners of such soils.

Few farmers appear to be aware of the injury which stagnant water, either on or immediately below the surfaces, causes to vegetation. There are many plants that will flourish and grow vigorously with their roots in running water, but there are few or none that do not appear to feel the poisonous effect of putrid or stagnant water. On hard-pan soils the proof of this is usually abundant; low spots where the water collects, and owing to the retentive nature of the soil, stands till carried off by evaporation, may be frequently noticed, and in which, in wet seasons, all vegetation has perished.

On hard-pan soils, spring crops will always succeed much better than winter ones; and of the grasses, those that have thick fibrous roots will succeed much better than winter ones; and of the grasses, those that have thick fibrous roots will succeed better than the tap-rooted; or timothy, orchard and red-top should be preferred to clover, sainfoin and lucerne, as these last are more liable to be frozen out than the former. This cultivation of the roots, such as ruta бага, carrots, or mangel wurtzel, will not succeed to any extent on hard-pan soils, unless much care is taken in the preparation and manuring of the soil, by placing manures in furrows, and with the plough turning elevated ridges upon it. On the whole it will probably be found that hard-pan soils are better adapted to grazing than to cropping, and that they can in this way be made to yield a certain and handsome profit to the owners.

ON THE APPLICATION OF LIME.

It is well known the farmers in several counties of Pennsylvania, have long been in the habit of liming their lands with great liberality, and with the most beneficial results. On this subject we copy the following recent communication from a Chester county farmer to the Farmer's Cabinet:

The discussion respecting the application of lime as a manure, reminds me of the anecdote of the old man giving advice to his son. "Put your lime," he said, "if possible, on your sod before it is ploughed. If you can't put it on before it is ploughed, put it on as soon as possible afterwards. And if you can't put it on after it is ploughed, then put it on the best way you can."

My design, at present, is to communicate a few facts, which have come under my immediate observation, and the result of the experience of others, in the application of lime as a manure.

In this vicinity it is becoming almost universal-

ly the practice, to apply the lime to the sod, the year previous to its being planted with corn. With this method several advantages are connected. First, the lime may be hauled and spread, at any time during the season—say in May and June, between corn planting and hay harvest. Second, the crops will derive much more benefit from its being put on the land some length of time before it is ploughed, than to put it on just at the time of putting in the crop. It has been duly ascertained, that one of the principal effects of lime—is, the decomposition and bringing into action, the inert vegetable matter in soil. When lime is spread on the soil, it comes into more immediate contact with the grass, and grass roots, than when the ground is first ploughed; in fields which have been partly limed on the sod, then ploughed, and the remainder limed at the time of planting with corn. I have observed in ploughing up corn stubble, that the part limed on the sod, ploughed up much mellowed, than that limed after the sod was ploughed; presenting a rich vegetable mould not observable in the other part of the field.

There are no kinds of crops which have come under my observation—namely, corn, oats, barley, wheat, rye, potatoes, clover and timothy, but what are benefitted by lime, with the exception of flax. Where flax was formerly raised to great perfection, a very inferior article is now produced since the application of lime. This has almost led to the abandonment of its cultivation in many sections of the country.

Oats, however, if the lime is applied fresh the season it is sown, will rather be injured than benefitted by it, in preventing it from ripening. I have seen oats, in fields which had been recently limed, send up an indefinite number of suckers or young stalks from the roots—which together with the parent stalk, would scarcely ripen if allowed to remain the whole season in the field; and the stubble would sprout up profusely after a crop was taken off. But when the lime has been applied a year or two previous, it is decidedly a benefit to the oats. Lime can be applied with advantage, whether put on fresh, or left exposed to the elements till it becomes cold. This has been exemplified in the application of mortar from old buildings which had been known to produce lasting effects. I have been told by a person who has had much experience in liming, that he has had clover to succeed better, after putting it on fresh slacked and hot, than in any other way.

The Lancaster turnpike, in the vicinity of the Great Valley, is supplied with stone from the quarries of primitive limestone in the south side of the valley. I have observed a field adjoining the turnpike of a thin slaty soil—the subsoil of which is composed entirely of a slate gravel, (and perhaps there are many others of a similar nature and similarly situated;) which has had no burned lime applied to it for perhaps an age, and yet is remarkable for its productiveness—being far superior to many others in its vicinity, which are possessed of a much richer natural soil. Part of this field receives the flood of the turnpike, by which it becomes overspread with the pulverized limestone of the road; and the other part is visited, in dry weather, by clouds of dust—which in my judgment, is the great stimulant to its vegetable productiveness.

If these facts amount to any thing, it appears that lime applied in whatever form, is a stimulant to vegetation. But the form and manner in which it may be most advantageously applied, I leave for others to determine.

[From the New England Farmer.]

¶ We have commenced Judge Buel's excellent Address, confident that we can offer nothing more useful or more acceptable to our subscribers and patrons. It is replete with thought and matured reflection, and exhibits an acute, philosophical and scientific mind, well versed in the subject of which it treats. It also evinces a practical knowledge, without which all our agricultural systems and theories would be of, comparatively, trifling benefit. There is a plainness, as well as a neatness in the style, and a simplicity of illustration, which show a happy capacity in the author to adapt his language and ideas to the occasion. The address is like a nut, full of rich meat and nourishment. Let the farmer, who is desirous of improvement, con it well. We assure him that his labor will not be lost. The winter evenings of the husbandman cannot be better spent, than in perusing the works of those who have given their minds, and devoted their labors to the benefit and improvement of this mother of arts. To see a father and his sons thus engaged, after the business of the day is over, when all is hushed and still, save the voice of the reader, is most interesting! We hope the time is approaching, when such scenes will be more familiar than they have for years past.

ADDRESS,

Delivered before the Berkshire Agricultural Society, at their Twenty-seventh Anniversary, Oct. 15, 1837.

BY J. BUEL.

Mr. President and Gentlemen of the Society :

In compliance with your invitation, I propose to offer to this assembly some remarks on the duties which devolve upon the farmer; and to discuss some of the prominent means by which those duties may be usefully and profitably performed.

Providence has imposed upon all, the obligation of providing for the wants and comforts of themselves and their households. These wants and comforts are not limited to mere food and clothing; they embrace the mind and habits of life—intelligence, industry, frugality, benevolence. The lively exercise of these virtues, if not always necessary to prevent want, are the surest means of promoting comfort, and of securing to our children the substantial enjoyments of life.

Though there are many ways and devices by which men endeavour to obtain wealth and happiness, there are few employments in which these are attained with so much certainty, or which are more conducive to health, to usefulness and manly independence—few which apparently better fulfil the beneficent designs of the Creator—than that assigned to our first parents—the cultivation of the earth. It has, to be sure, like all other avocations, its cares and its toils—

its thorns—yet the wise and the good, engaged in its pursuits, seldom fail to draw from these, lessons of wholesome instruction: to them, every thorn has its rose. Nor does farming afford that prospect of rapid gain, which some other employments offer to our cupidity; yet neither does it, on the other hand, involve the risks, to fortune and to morals, with which the schemers and speculators of the day are ever environed.—It offers a sure and substantial source of gain and of usefulness, far better for the individual and the community, than fortunes made in a day, and lost in a night—made by trick, and dissipated by folly. Rural life is exempt from a crowd of evils, of rivalships and jealousies, which often cloud and embitter the lives of men in other professions.

“The husbandman should hate no one, for he should dread no rivals. If his neighbor's field is more productive than his own, he borrows a useful lesson.” If his own field is the most productive, he has the satisfaction of knowing that he is teaching and benefiting his neighbor by his example. He learns to consider his own welfare as intimately identified with the prosperity of all around him. A gentleman highly distinguished for fortune, talents and usefulness—who participated largely in the honors and duties of public life, and who, by his examples in rural improvement, and his writings, mainly contributed to raise the agricultural character of his district to a perfection, excelling that of any other district in the Union. I allude to the late Chancellor Livingston—has said, with much truth, that “If happiness is to be found upon earth, it must certainly be sought in the indulgence of those benign emotions” which are the reward of rural cares and rural troubles. “As Cicero,” he continues, “sums up all human knowledge in the character of a perfect orator, so we might, with much more propriety, claim every virtue, and embrace every science, when we draw that of an accomplished farmer. He is the legislator of an extensive family, and not only men, but the brute creation, are subject to his laws. He is the magistrate who expounds and carries these laws into execution. He is the physician who heals their wounds, and cures the very diseases of his various patients. He is the divine, who studies and enforces the precepts of reason. And he is the grand almoner of the Creator, who is continually dispensing his bounties, not only to his fellow mortals, but to the fowls of the air, and the beasts of the field.”

With a conviction of these truths upon his mind, no farmer should repine at his lot, or envy the specious or substantial prosperity of his neighbor; but aim contentedly to fulfil with fidelity, the high duties imposed upon him as a cultivator of the soil.

The condition of the agriculturist imposes upon him other duties than those which regard the welfare of his household. He is to provide for the subsistence of the great national family.—Most of the necessities of civilized life are drawn from the soil, the supervision and management of which he has taken upon himself. Our population is divided into professions and trades, to each of which belong particular offices; and the welfare of the whole depends upon each fulfilling, with fidelity, its respective relative duties. A mu-

tual dependence and obligation exists among the various classes, without serious detriment to the whole. The obligation is particularly mandatory upon the tiller of the soil; for, upon his labours, the other classes mainly depend, for many of the absolute necessities of civilized life. If the farmer is industrious and intelligent—for intelligence serves greatly to abridge labor, and to multiply its products and its profits, the bounties of the soil, with the blessings of Providence, will be abundant, and plenty will spring up in every corner of the land. But the soil will withhold its treasures, in proportion as ignorance prevails, or as rural labor relaxes its efforts, and the consequent suffering is felt, with the certainty and force of an electric shock, through the whole social circle. We want nothing but the melancholy experience of the last year to persuade us of this truth.

Society is dependent upon the farmer, not only for the necessities, but indirectly for many of the refinements of life. Agriculture furnishes most of the labor which creates our wealth; it provides most of the raw materials for the manufacturing arts; it freights the bark of commerce; and, by receiving in exchange the fabrics of the one, and the commodities of the other, it sustains and enriches both.

He who does not appreciate his social obligations, or knowing, neglects to fulfil them, and lives only for himself, perverts his noblest faculties, and lives and dies a stranger to the best feelings which dignify human nature.

Our agriculturists are also specially charged with the guardianship of our freedom. They constitute the fountains of political power, and are the conservators of the whig principles which made us an independent nation. If the fountains are impure, the stream of power will be defiled and corrupt. The farmers compose the great body of our population, and must ever, while we remain a free people, control the destinies of the republic, and give the impress to our national character. Their republican and independent bearing—their sober good sense, unostentatious labors, and love of order, must protect us alike from the wily encroachments of ambition, the enervating and corrupting influence of wealth, and the tumult and violence of the mob. They are to a free state, what a main-spring is to the watch—the great moving and regulating power. Rome remained free while her middling classes retained a controlling influence in her public affairs, and she sunk to despotism, in proportion as this barrier between her patricians and her plebeians, was broken down and destroyed. “The corruption of Rome began,” says Sismondi, “from the time that the middle class ceased to impress its own peculiar character on the whole nation; this corruption increased in proportion as the intermediate ranks disappeared; it was carried to its highest pitch, when the whole empire consisted of men of great wealth and the populace. It is in fact,” he continues to remark, “in the middle classes, that the domestic virtues—economy, forethought, and the spirit of association—mainly reside. It is in them, that a certain degree of energy is incessantly called into operation, either as a means of rising, or of keeping the position already acquired. It is in them alone that the sentiment of social equality, on which all justice is based, can

be kept alive. Grandeur isolates a man; vast opulence accustoms each individual to look upon himself as a distinct power. He feels that he can exist independently of his country; that his elevation, or his fall, may be distinct; and, ere long, the servile dependents by whom a man who spends as much as a petty state, is sure to be surrounded, succeed in persuading him, that his pleasures, his pains, nay, his slightest caprices, are more important than the thousands of families, whose means of subsistence he engrosses."

In view of the high duties and responsibilities which devolve upon the farmer, as a parent, a tiller of the soil, and a watchman on the citadel of freedom, it becomes us to inquire, what are the best means of enabling him to act well his part on the theatre of life, in the several capacities that have been enumerated.

The duties of a parent to his children, may be composed in a brief sentence: teach them what good men in every age, as well as divine inspiration, have defined to be the cardinal virtues,—*love to God and good will to man*—teach them to be industrious, to be frugal, to be temperate, to be humble, to be honest, to be kind hearted—and *teach them by example*.

Health is among the first blessings of life, and the prudent man will always endeavour to secure it for himself and his family. This may be promoted by many little attentions which some do not know how to value, and which others, knowing, shamefully disregard.

Temperance, in all our animal indulgences, as well as in our passions, is particularly promotive of health. The human frame is so delicately and wonderfully made, that an access or violence, which may impair the functions of one part, may cause irremediable injury to the whole system.

The air we breathe, though essential to life, becomes vitiated, and prejudicial to health, by respiration, by putrefying vegetable and animal matters, by stagnant waters, and by a state of rest.—Hence our dwellings should be located in dry and healthy situations, our apartments should be roomy, kept in a cleanly order, and frequently aired; every species of putrefying substance should be removed from our house-yards and cellars, and the latter kept dry, by drains, if necessary, and often ventilated.

The offices of the skin, are all important to health. Lavossier has shown, that upon the lowest estimate, the skin is endowed with the important charge of removing from the system, by the process of insensible perspiration, about twenty ounces of waste matter in every twenty-four hours, while the maximum has been found to amount to five pounds a day. These excretions are greater in amount, Dr. Combe adds, than the united excretions of the bowels and kidneys.—These facts admonish us, that if the functions of the skin become suspended, by a disregard to cleanliness, by too great indulgence in sedentary habits, by exposure to sudden transitions of temperature, or other causes, and the impurities which are ordinarily thrown off by this channel, are suffered to remain and accumulate in the system, health must be impaired and endangered.—So important is a clean skin considered in the economy of health, that frequent ablutions have been enjoined as a religious duty among many eastern nations. A like attention, among us, to

keep in wholesome exercise, the important functions of the skin cannot fail of being highly conducive to health.

Vegetation purifies the air, and health, as well as beauty and comfort, are essentially promoted, by surrounding our dwellings with fruit and shade trees, and ornamental plants. The splendid elm which stands on yonder common, is alike the ornament and pride of the town. What a lesson of instruction does this afford! Every man may plant an elm and a maple—an apple tree and a vine—a lilac and a rose-bush, in a leisure hour, and may live to enjoy their shade, their fruit, and their fragrance; or should Providence otherwise ordain, may leave them as a grateful inheritance to his posterity. Our fathers planted for us, and we should requite the obligation, by planting for our children.

Most of the diseases which afflict our species, may be traced to impure air, obstructed perspiration, or intemperate indulgences.

Another source of high, but rational gratification to the farmer, is the garden. This may be made to administer largely to the variety of his viands, the subsistence and health of his family, and the recreation and improvement of the mind, without materially abstracting from the labors of the farm. So strong is my conviction of the economy and salutary influence of a well cultivated garden, that when I chance to see one in travelling abroad, I involuntarily ascribe to its occupants, economy, good taste and domestic enjoyment.

The best preventive for gossip and tale bearing, the common recreation of the idle and the ignorant, and the bane of those good feelings and kind offices which sweeten and augment the pleasures of good neighborhood, is to inculcate in early life, a taste for useful reading. Books remind us of our duties, instruct us in our business, and afford useful employment and recreation for the mind in hours of rest or of leisure; and when the habit of reading is once acquired, its pleasures and advantages become more and more perceptible and enticing, as we advance in useful knowledge. Those who employ their time in their own business, seldom find leisure or disposition officiously to intermeddle in the private concerns of their neighbors. But the mind is as liable to disease as the body, and a diseased mind is far more prejudicial to character and usefulness than a sickly body. Evil communications corrupt good manners; and bad books, or useless books, are as injurious to the mind and manners, as bad companions are, or as impure air, or obstructed perspiration are to the body. The adage teaches, that a man is known by the company he keeps, and the maxim is true, applied to books as well as men.

Having discussed the affairs of the family, let us now go to the farm: For, after all, our capacity for providing suitably for ourselves and families, and of becoming useful to others, will depend in no small measure, upon the extent of our pecuniary means, and these means are to be acquired by the profits of our labors upon the farm.

I would premise in the outset, that the business of agriculture has not kept pace with the other useful arts, in the march of improvement, and that it requires all our exertion and enterprise to overtake the spirit of the age. In the other arts of

productive labor, the improvements of the last 50 years have been greater in amount than during the preceding century. No man prospers in the mechanic or manufacturing arts at this day, who treads in the footsteps of his ancestors. By reason of the application of science, and the multiplication and great improvement in labour-saving machines, old practices have been superseded by new and better ones—all has been changed—all improved. A useful discovery in those arts is no sooner made in one country, or in one district, than a knowledge of it is disseminated, by means of the press, through every civilized land, almost with the rapidity of the wind, and it becomes known and adopted wherever it can be useful.—But in husbandry, the case has been different.—We have, to a ruinous extent, in many parts of the country, persevered in the practices of our fathers, which, though adapted to their time, and the circumstances of a newly settled country, are illy suited to an exhausted soil, or to the present age of improvement. We, too, must call science and the press to our aid, if we would successfully compete in the business of farming, with the well cultivated countries of the old continent, or the highly improved districts of the new one.—The agriculture of England has doubled its products in the last sixty years, and the agricultural productions of Scotland, have been more than quadrupled in the same period. In France, men of profound science, have successfully devoted their talents to the improvement of the soil, and the government has efficiently aided their efforts, by the establishment of schools of practical and scientific instruction in husbandry, and by pecuniary aids to her agricultural societies. There, the soil has been improving under the *new* system of husbandry: here, the soil has been deteriorating under the *old* system. The lands of Flanders have been in unimpaired fertility six centuries, and those of China, for more than two thousand years. Providence has provided for us too abundant means of perpetuating the fertility of our soils, and has endowed us with capacities of applying them to advantage. We have received the talent. If we hide it or do not put it at interest, the master will assuredly take from us that which we have, and give it to him who has already much. But the spirit of agricultural improvement is abroad in our land. The young farmer, in particular, feels its vivifying influence. It has already done much, and with the aid of agricultural societies, and of agricultural periodicals, which are increasing in numbers and usefulness, its benign influence will soon be manifest in every section of our country. We have the strength and enterprise of a young nation; and we possess advantages, and enjoy privileges, unknown to any other agricultural people upon the globe. It becomes us, then, to call promptly to our aid, the lights of science, and the diffusive influence of the press, that we may realize the high destinies seemingly allotted to us by a kind Providence.

Allow me to make a farther digression, to speak of a means of improving our husbandry, which is too much neglected, and too often contemned and ridiculed. I allude to what is sometimes, in derision, termed *book farming*, but which in reality, offers the most substantial facilities to improvement, and the acquisition of wealth. Let us inquire what this book farming is.

A German, by means of study and observation, aided by a long course of practical experience in husbandry, has been able to ascertain the degree of exhaustion in fertility, which soils ordinarily undergo, from the growth of common grain crops,—and how much their fertility is increased by given quantities of manure, and by pasture—thus teaching how to maintain, or to increase, the fertility of the soil, and consequently its products and its profits, from the resources of the farm.

Other men have been assiduously engaged for years, in studying, and have satisfactorily ascertained, the laws by which heat, air and water, are made to exert their best agency in preparing the food, and accelerating the growth and maturity of plants—and have published directions how to derive the highest advantage from these primary agents of nutrition.

And others have invented new and improved implements of machinery, calculated to relieve agricultural labor of half its toils.

A farmer in Ohio, raises fifteen hundred bushels of Swedish turnips on an acre of ground, enough to feed and fatten ten bullocks seventy-five days. A farmer in Massachusetts, by a new mode of managing his corn crop, has realized a nett profit of \$150, on little more than an acre of land, while his neighbors, in the same season and in adjoining fields, have not been remunerated, in their crop, for the expense of culture. A farmer in New York, has proved by experiment, that by a new process of making hay, he can save ten per cent. in weight, something in labor, and other ten per cent. in the quality of his forage. Another farmer of my acquaintance, has cultivated twenty acres of Indian corn, and eight acres of beans the present season; the former, estimated to average forty bushels the acre, and the latter giving more than an ordinary yield—without employing a plough or a hand hoe, in the planting or culture,—the whole work having been performed with the drill harrow and cultivator, implements of modern introduction, thus economising from one-half to two-thirds of the labor ordinarily bestowed.

These are all matters of recent record, but as they happen to be *printed*, they very properly fall under the denomination of *book farming*. But are they, on this account, less true, or is the information they contain less useful in your practice? If a neighbor makes a palpable improvement, by which he doubles the value of his labor, you readily avail yourselves of his discovery, though you do it by stealth. Through the means of agricultural publications, the entire farming community stand in the relation to you of neighbors—you become acquainted with all their improvements, and are enabled to profit by their skill and science. I might detain you for hours with details of improvements in husbandry, which are essential and accessible to the farmer. Hundreds of men of profound science, and thousands of the best practical farmers, in this and other countries, are engaged in improving agriculture—in making two, three and four blades of grass, and two, three and four bushels of grain grow, where but one blade, or one bushel, grew before; and they are tendering you the benefits of their labors, in the agricultural works of the day. The accumulated experience, and the improvements of centuries, have been registered by the press, and their benefits are tendered to all who will read and profit by

them, almost without money and without price. He that will read may learn.

(To be continued.)

[From the Horticultural Register.]

A Descriptive Account of the Origin, Culture, Progress and Productiveness of the celebrated Black Hamburgh Grape Vine, Hampton Court, England. By EDWARD SAYERS, formerly an apprentice in the Gardens

PERHAPS there are few individual plants in the vegetable kingdom more generally known from record, and that have been the grandparent, as it were, to so useful and numerous a progeny, as the celebrated *vine* about to be described. For although it is pretty certain its first *origin* was from Hamburgh, from which it derives the name Black Hamburgh Grape; certain it is, that most of the grape vines so named now extant, can be traced in their first progeny to the old parent vine at Hampton Court.

From the account given to me by the head gardener, Wm. Padley, Esq., in the year 1824, while thinning the fruit, it appears that the vine, if now alive, is over 70 years of age. For at that time Mr. P. informed me it was sixty years of age and had been under his inspection with the same mode of culture upwards of 40 years; and the fact was farther corroborated by an old man, Henry Taylor, 80 years of age, who was educated and worked in the gardens all his life time; he also affirmed the fact, of planting the vine in the place where it then stood, with his father.

Mr. Padley observed, it has always been a remarkably healthy vine, and a very great favorite with George the Third, who, during his later years, made it a practice always to see the vine in full fruit and vigor, before any grapes were cut from it, yearly. But, George the Fourth seems to have been more fond of the juice of the grapes* than the beauty of the vine, for he seldom or ever visited it or the gardens, although from them his dessert was principally furnished, and he was certainly one of the greatest critics and connoisseurs of fruit of his day.

The first *origin* of the vine, says Mr. Padley, was from Hamburgh about 60 years ago; four cuttings were sent under the name of Black Hamburgh to his majesty George the Third, but two only were made to vegetate, one of which was sent to Cumberland Lodge, and the other retained and planted in the place where it now grows. He continues, "The house was then a small pine-stove used for succession pines, but in consequence of the vine making such rapid growth and the fruit being of a superior quality, it was entirely appropriated to its growth, which soon covered the whole of the roof, and it was therefore deemed requisite to enlarge it, to allow the plant to grow to its full extent; which, however, was not found sufficiently large and it was again enlarged to the present size.† He further remarked that the extraordinary growth and size of the vine, has been the cause of many erroneous ideas among gardeners *relative* to the probable cause of its

[*There is a want of good taste, as well as feeling in this remark. Ed. Farmer & Gardener.]

†75 feet long, 17 wide, with an elevation of about 45°.

large growth, as there never had been any border or preparation made purposely for it: many suggested that its fibrous roots had perhaps found their way to the margin of the Thames (which was probably about 115 feet from the base of the main stem;) this was however controverted by the fact that one of the roots of a considerable size was found traversing some distance up a dead drain, that was opened for the purpose of being cleaned; but from the probability that the vine received much of its sustenance from that source, it was allowed to remain untouched. The vine being placed in that part of the garden where much of this kind of nutriment could be obtained, it is very probable that its chief support was obtained this way.

The method of pruning then, and, as it appeared, always before, was that which is strictly called the spurring system; and the manner of training or framing the vine, was by leading three main shoots from the north corner of the front of the house (where the vine is planted) along the front to the south end, where they were turned and brought around to the back part of it, and returned about half way back; therefore the extreme point of the main shoots was over one hundred and twenty feet from the roots. From the main shoots laterals were trained across the house, and made to meet in such a manner that the roof was entirely covered.

The method followed in the culture of the vine was to winter prune it in the month of February; and to keep it as late as possible before it vegetated or *broke*, when it had the usual treatment given to vines in such situations; until the flowering commenced, when a little fire was used to *set* the blossom; after this period no fire was used during the growth of the fruit; but, in the fall, when the grapes were ripe, a little fire was used to keep out the damp. The fruit was allowed to hang on the vine until the latter end of January, when it was cut, and the same process was followed for many years.

The management of the vine was under three different persons, during my time in the gardens; Mr. Groves, the foreman of the melon ground, had winter pruned it twenty years; Mr. William Sorford, who superintended the private gardens, had the management of it, as regards giving air to the house, twenty years or more. The person who had the charge of the second houses in the melon ground, summer dressed it, thinned the grapes, and attended to heating the house, &c. The general produce of the vine was supposed to be about sixteen hundred pounds weight of grapes a year, as the bunches were generally thinned to about that number, which were estimated at a pound weight each. In the year 1818, in order to try the probable weight of grapes which the vine would bear, 2,200 bunches were left on, which were calculated, perhaps not unjustly, to be one *ton*, or twenty hundred weight of grapes.

The Black Hamburgh Grape may be said to be excelled by none as a fruit of the first order in flavor, and its excellent appearance as a dessert renders it equally applicable as a handsome fruit. To this may be added, it is, when well managed, an almost certain bearer; and to further assert these facts, it may be said that half the grapes cultivated under glass in Great Britain and America, are the Black Hamburgh.

It is a singular fact, and rather to be regretted, that such authors as Loudon and his followers should designate this grape as the "Red Hamburgh," when it is, when well ripened, a *jet* black, and is as properly named as it possibly can be under the name of Black Hamburgh. But there is a singularity in this vine, which is not perhaps seen in any other kind, which is, that the whole produce of fruit on a vine, in a damp season of its ripening, is *red*; and on the contrary, if a fine sunny season, it ripens a *jet* black. And hence a common saying among the gardeners at Hampton Court, of a damp humid season, that "the old vine would produce *red* Hamburgh that year." The fact is, that this fruit, like many other kinds, rarely ripens well without the influence of *sun* and *air*; and many instances of the above mentioned may be quoted in this country, in different parts, of the *true* black Hamburgh vine ripening its fruit of a *red* color.

From the manner of treatment of this vine and many large ones, as that of Cumberland Lodge, managed by spurring, we may draw an inference that it is the most correct system, as, certain it is, that the heaviest crops of grapes from the spaces covered have been obtained under that method; and although many fine crops of this grape have been grown from the caning system, it is very doubtful, if a *fair* trial was given to two separate houses of the same dimensions for a number of years, if any system, either known or that could be projected, would answer so good a purpose as that of *spurring*, and allowing a vine to extend its branches so far as its nature requires, without exhausting its strength and constitution into a feeble habit, by overbearing it, when in a young state; (a system often adopted, and the cause of many fine houses of grapes being crippled in their infant state.) The coiling, caning, and Thomeroy systems have their respective merits, where produce and local circumstances predominate; but where space and time are in unison with a well matured soil for vines to root into, and other circumstances congenial to the full development of the vine, I think the spurring system will be found the most profitable where houses are to be established for a number of years.

It may be laid down as a general *law* in the vegetable kingdom, that every plant or tree, to come to its proper size and yield its best and greatest produce, should be allowed to extend to its proper growth without being curtailed by any artificial means; and it will be found in the grape as in all other kinds of fruit, that whenever the free born limbs of nature are cramped or curtailed either to hasten or confine fructification into a contracted space, that the natural *habit* and *vigor* of such plants are in a measure retarded and suspended from that habitual character they would otherwise attain. It is also a fact well known, that the vegetable kingdom like the animal, in renewing its progeny from one family to another, assumes a different force of natural *habit*, as regards a more or less vigorous stature, health and general feature; hence the oak spreads its acorns around at the same time, season, soil and location; but the young plant arising therefrom, in course of years, with the same favorable situation, assumes a different size and healthy appearance. And the same thing happens in all kinds and families of trees and vegetables.

IMPROVED GRAIN CRADLE.

Rev. Henry Colman—Dear Sir:—When I last saw you, you gave into my keeping an implement new at least in this part of the country, which Mr. Charles Vaughan, of Hallowell, Maine, had sent to you, and recommended as a substitute for the sickle and cradle in harvesting wheat. Mr. Vaughan has described it in an article which was copied into the New England Farmer of the 2d ult. Having had opportunity to witness its operation in harvesting wheat, rye and oats, I am very happy to agree with Mr. Vaughan in the opinion expressed by him, that the use of this implement will be a great saving of labor. And I think that farmers are under great obligations to him for his praiseworthy endeavors to make them acquainted with a tool, at the same time so valuable, so cheap, and so easily constructed.

The advantages of Mr. Vaughan's cradle, are, that four times as much grain may be harvested in a day with it as with a sickle, and that the straw may be cut as close to the ground as in mowing grass, so that no waste stubble is left. It is much lighter, more easily made and kept in repair, than the common clumsy cradle, which is burdensome for a man to bear on his shoulder, and which to swing all day, requires great strength and effort. To reap half an acre of grain, is considered a fair day's work; and to do this well, a man must have had some experience in the business. To use the old-fashioned cradle, requires so much dexterity, that, with us, it is almost a trade by itself; and a cradler demands and receives two or three times as much pay as a common laborer. With the improved cradle, after a little use, a good mower will be able to reap as much ground in a day, as he could mow, and to leave the grain in good order to bind up. It is no inconsiderable advantage to cut the straw close to the ground.

The cheapness and simplicity of the construction of this new cradle, and the facility with which it may be used, are great recommendations. I cannot but think that if this implement were more extensively known, it would be considered a great acquisition to the farmer's stock of tools, and that it would be the means of saving him much time and labor. I am, dear sir,

Very truly, your obliged friend,
DANIEL P. KING.

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

EDWD. P. ROBERTS,
oc 3 Baltimore, Md.

CONTENTS OF THIS NUMBER.

Tender of New Year's compliments—N. Y. Albion—feeding Stock—scarcity of Pork in Danville, Va.—superior Sugar cane—the Grain Cradle, a new machine—agricultural premiums in N. H.—value of Marl, and how to test it—management of "hard-pan" soils—on the application of lime—Address of Judge Buel of N. Y.—an account of the black Hamburg Grapevine—improved grain cradle—advertisement, prices current.

TRY THE NEW ESTABLISHMENT.

NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch. Also, Cline's combined Plough.

J. T. DURDING.

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THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal has been so fortunately supplied:

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.

Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,
JOSEPH H. JONES, Sec'y.

RICHARD J. BOWIE, Sec'y.
Rockville, Montgomery county, Md. Oct. 20, 1837.

ROBERT SINCLAIR'S NURSERY, AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most CHOICE COLLECTION, from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, English Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsman, in Light st., act as agents, where necessary.

oc 17 5t

ROBERT SINCLAIR, senr.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	6 00	7 25
CORN, yellow	bushel.	76	78
White	"	75	78
COTTON, Virginia,	pound	11	—
North Carolina,	"	—	—
Upland,	"	10	12
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's	"	—	—
SuperHow. st. from stores	"	9 12	9 25
" " wagon price,	"	8 87	—
City Mills, super.	"	8 87	9 12
" extra	"	9 25	9 50
Susquehanna,	"	—	—
Rye,	"	6 50	—
Kiln-dried Meal, in hhds.	hhd.	21 50	22 00
do. in bbls.	bbl.	4 50	4 62
GRASS SEEDS, wholes. red Clover,	bushel.	5 50	6 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	6 25	6 50
Slaughtered,	"	6 75	6 87
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	38
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	—	3 50
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGE,	pound.	3	4
RYE,	bushel.	90	95
Susquehanna,	"	—	—
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 90	2 00
Red, best	"	1 80	1 82
Maryland inferior	"	1 60	1 70
WHISKEY, 1st pf. in bbls.	gallon.	43	44
" in hhds.	"	42	42½
" wagon price,	"	—	39
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35	40 18 20
Three fourths Merino,	"	30	35 18 20
One half do.	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,	"	28	30 18 20

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	13	13
Shoulders, do.	"	10½	10½
Middlings, do.	"	do	do½
Assorted, country,	"	9	9½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	5 00	6 00
Cows, new milch,	"	25 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 68	1 75
CHOP RYE,	"	—	1 62
EGGS,	dozen.	18	—
Fish, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,	"	4 75	—
Cod, salted,	ewt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	do	Farmers Bank of Virg. 1½a1½
Other Branches,	do	do	Bank of Virginia,
			do
			Branch at Fredericksburg do
MARYLAND.			Petersburg,
Banks in Baltimore,	par	do	Norfolk,
Hagerstown,	¾a	1½a1½	Winchester,
Frederick,	do	1½	Lynchburg,
Westminster,	do	1½	Danville,
Farmers' Bank of Mary'd, do	do	10	Bank of the Valley, ..
Do. payable at Easton, ...	1	do	Branch at Romney, ...
Salisbury, 2 per ct. dis.	do	do	Do. Charlestown, do
Cumberland,	3	do	Do. Leesburg,
Millington,	do	1½	Wheeling Banks,
DISTRICT.			Ohio Banks, generally
Washington, } Banks, ¾p.c.		6a7	New Jersey Banks gen.
Georgetown, }		5	New York City,
Alexandria, }		5	New York State,
PENNSYLVANIA.			Massachusetts,
Philadelphia,	¾a	3a3½	Connecticut,
Chambersburg,	1	3a3½	New Hampshire,
Gettysburg,	do	3a3½	Maine,
Pittsburg,	¾a	3a3½	Rhode Island,
York,	1	3a3½	North Carolina,
Other Pennsylvania Bks.	4	5	South Carolina,
Delaware [under \$5]	6	8a10	Georgia,
Do. [over \$5]	2	do	New Orleans,
Michigan Banks,	10	12	
Canadian do.	10		

THE GENUINE MORUS MULTICAULIS, AND GRAPE VINES.

The undersigned having a disposable stock of the genuine Morus Multicaulis, will sell at the following prices—For rooted plants, as of layers one foot and upwards high, to trees of 8 and 9 feet, from 10 to 30 dollars per hundred; and the cuttings from 10 to 40 dollars per thousand, as they may have 1, 2, 3 or 4 buds each, or at the rate of one cent a bud, in cuttings or limbs uncut, as may suit purchasers. The above stock of some hundred trees and several thousand cuttings, together with a large number of rooted Grape Vines at 20 dollars per hundred of kinds most select for American culture, to be engaged according to priority of application, made to the subscriber (if by letter) as postmaster at Brinkleville, Halifax Co N. Carolina.

Nov. 9, 1837—21

SYDNEY WELLER.

3t

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Threshing Machines, with or without horse power
Superior Grain Cradles
F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes
A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes
Swingle Trees and Hames
Hay Forks and Rakes
Also, a great variety of Manure Forks, Shovels, &c.
Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Wheat FANS, of various sizes
Ploughs and Machinery done at short notice
Mattocks, Picks and Grubbing Hoes
Liberal discount made to those who purchase to sell again.
Corn Shellers

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with largesmooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white Mulberry, which increases their hardiness, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Price catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

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The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms

EDWARD P. ROBERTS.

Baltimore Md.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 37.

BALTIMORE, MD. JANUARY 9, 1838.

Vol. IV.

—THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the *N. W. corner of Baltimore and North streets, over the Patriot office*, at two DOLLARS AND FIFTY CENTS *per annum*, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: JANUARY 9, 1838.

TO OUR AGRICULTURAL READERS.

As examples of successful culture serve to inspire a spirit of emulation, we should be happy to receive from each of our friends who have been successful in any article of culture, communications descriptive of the same; and the debt of obligation would be still greater, if they would give us accounts of their respective modes of cultivation. We hope that the diffidence of no agricultural reader will be permitted to prevail over his sense of duty to the cause of husbandry.

COTTON.

We are happy in perceiving by the news received by the packet ships from Liverpool, that the cotton market was active, and the price had advanced about 1d. per pound. This will be gratifying to our southern cotton growing readers, and, we rejoice at it, *first*, because, every advance in the value of this greatest staple of our country, serves to reduce the balance of trade against us, and consequently to equalize the exchanges between our country and Great Britain; and *secondly*, because, together with the increase in the last year's crop, it will relieve, in a great measure, the people of the south from their embarrassments.

A GOOD YIELD OF CORN.

We learn, upon authority of the first respectability, that the Hon. Judge John Buchanan, Chief Justice of the Court of Appeals of Maryland, made off of 50 acres of land, the present season, 700 barrels of corn, being 14 barrels to the acre. —This, for the size of the field, is an extremely large product, and shows what an intelligent farmer, who has the moral courage to rise superior to the trammels of prejudice, is capable of achieving, and it shows too, that, with proper culture, one acre is capable of being made to yield

more grain than is now produced on two acres, if the proper pains be taken to develop the capacities of the earth. To us it has always been obvious, that the plan of putting in large crops, without the least attention to the proper preparation of the soil and after culture, was not only a mistaken notion, but a most pernicious practice. If by judicious management one-half the usual quantity of ground can be made to produce as much or more than the whole indifferently tended, it is very plain that the mere saving of labor would prove a fair profit; and we would ask, wherein consists the policy of wasting time and means in the *half cultivation* of a *large field*, when by the *efficient management* of a *small one* much greater product can be obtained?

ANOTHER GOOD YIELD.

Our neighbour, Capt. Abel S. Dungan, housed from a field of 15 acres in corn, 160 barrels of good sound corn, with a very small portion of nubbins among it. This is at the rate of 10 10-15th barrels to the acre; and when it is considered that this was produced upon soil not naturally strong, it must be admitted that the greater degree of credit should be conceded to the Captain, for the skilful manner in which he has overcome the obstacles of nature. By the bye, we have generally observed, that intelligent sea captains have almost invariably made good farmers.

AGRICULTURAL SCHOOLS.

We are sincerely gratified to find by the proceedings of the House of Delegates of this state, that the Committee on Agriculture have been directed to inquire into the expediency of establishing *Agricultural Schools* in the several counties of this State. This motion, though not decisive of the success of the measure proposed, or, indeed, of any other, is pleasing, because it indicates an interest on the part of the House in the agricultural community, highly honorable to them.

While we have pen in hand, we will say that there is another subject which we could have wished to have seen included in the order in question—we mean the establishment of *Agricultural Societies*, under the patronage of the State. —The states of New-York and Massachusetts,

have each passed laws, appropriating a sum annually, equal in amount to such sum as may be raised by the citizens of any county in these states, respectively, for their organization and support of such Agricultural Society as may be organized therein. This paternal care, on the part of these states, has had the most beneficial effects, and has been the happy means of improving the soils, and breeds of domestic animals, more within the last few years, than had been effected for a quarter of a century prior to their creation: —Indeed, improvements in every department of husbandry have been brought about with the most astonishing rapidity, as is evinced by the numerous *premiums* awarded for various crops, whose greatly increased products, if not well attested, would challenge the belief of credulity itself. —Among the premiums awarded, we have seen them for 136½ bushels of corn to the acre, 41½ bushels of wheat, 80 bushels of oats to the acre, 500 and 600 bushels of potatoes, and 1000 and 1200 bushels of mangle wurtzel. What, we would ask, but the liberal policy before referred to, could have engendered that spirit of enterprise and emulation, which have ensured these noble and salutary results? As the main wealth of every state arises from the labors of those engaged in agriculture, it has always appeared to us not only to be the province, but the duty of legislatures, to endeavor by their measures to foster this interest and develop its resources. If by such policy only twenty per cent. can be added to the productive ability of the soil, how great would be the aggregate of wealth, and the degree of comfort conferred upon the public. If we were to be called upon to form an estimate of the average of corn produced per acre in this State, from the best information within our possession, we would say, it did not equal 5 barrels, and certainly there is no one acquainted with the culture but will admit that, with ease, these very fields might be made to yield 10 barrels per acre. If this be the fact, and we think no one will venture to controvert it, we would ask, is it not worthy of an effort by our lawgivers to endeavour to effect it? —We are certain that there never has been an Agricultural Society located in any county, in any country, where it has been well conducted, but has wrought the most favorable changes in the

be broken up in June, and twice ploughed."

In the New-England Farmer for 1823—4, is a valuable paper from Judge Buel, detailing his course of four years, and of five, with a particular account of the expense of profits per acre. His four years course commenced in the spring with corn on land thoroughly manured, the sward turned over, rolled, and corn planted. In the fall corn cut up by the bottom, harrowed and ploughed, and sown with wheat. Second year wheat, with turnips after. Third year barley, with ten lbs. of clover seed per acre. Fourth year clover, pasture or mowing. In the five years course;—Indian corn as before. Second year, wheat with ten lbs. of clover seed per acre;—third year clover for mowing—after mowing turned over and ruta бага sown;—fourth year, barley and clover seed as before;—fifth year, clover for mowing or pasture. The manure in all cases to be applied to the corn or the turnips.

We think P. will find in the foregoing examples sufficient direction as to the most approved method of cropping or cultivating his farm so as to make it both durable and profitable. He must, however, bring his own judgment largely into requisition, or he will after all fail as a farmer. Experiments and books furnish results and principles—the application of them must depend on the individual. If his farm is destitute of fruit trees, let him apply to some nurseryman of established probity for a supply, and be careful that the selection is of the best kind, and adapted to his location. To plant poor fruit trees because they can be obtained cheaper, is miserable policy, and poor fruit is worse than nothing; and there are locations where expenses in procuring certain kinds of trees would be entirely thrown away, for they will not succeed. If P. wishes stock, let him procure good blood, and good formed animals, and he need not fear the result; the best in such cases are usually the cheapest in the end.

But if after all P. wishes to succeed as a farmer, he must attend to his farm himself. He must see there is a place for everything, and everything in its place; he must say to his laborers, *come, not go*; and he must know by personal observation that there is such a thing as the rising of the sun. With industry, prudence and economy, a farmer cannot fail to grow rich; and an increase of knowledge should be in an equal or increasing ratio.

[From the Genesee Farmer.]

SUCCESSFUL CULTIVATION OF ROOTS.

Mr. Tucker: My business is to work, and not to write for the press, but as you ask communications from the farmer, I will in my plain way, state what I have experienced in the cultivation of the Potato, Ruta Baga, Mangel Wurtzel, Carrot, and Sugar Beet; manner of feeding, storing, &c., and the quantity of roots I raised this season.

The Potato with me for ten years, the last excepted, has been a fair crop, but by adhering to the old method of tillage, has been more expensive than is necessary, as I find by the course I have adopted this season. I planted three acres the 29th and 30th of May; first ploughed, then manured with coarse barn-yard manure; then ploughed again and harrowed. Struck out the

rows three feet apart with a one-horse plough, say five inches deep; dropped the seed eighteen inches apart, turned back the furrow, and the work was done. For hoeing first and second time, the cultivator, so gaged as to fill the whole space between the rows, was passed through, followed by the hoe, giving a slight dressing, but making little or no hill, and the whole labor, after the ground was fitted, did not exceed three and a half days' work per acre. By the use of the plough the seed was planted deep; the potato never takes a downward direction. The cultivator loosened and mellowed the earth so as to allow the roots to extend, and to occupy nearly the whole row. *Get an expanding and contracting cultivator. Get one! Get one!!* The product was over 430 bushels per acre; 1300 bushels from the 3 acres.

The Ruta Baga I had cultivated to considerable extent for three years with success. This year I planted three acres in drills twenty-one inches apart, 26th and 27th of June. So soon as up, I sifted house ashes and plaster, mixed in equal quantities, at the rate of fifteen bushels per acre, with wire sieves, row by row, over the whole. The effect more than answered my expectations: that little pest, the turnip bug or fly, or its ravages, was not seen at all, and the growth was most vigorous. One acre of the piece had been planted with carrots, only about one-fourth of which was standing, by reason of the insect, bad seed, or both, and ruta бага was planted in all the vacant places in the rows. They were thinned out, and hoed twice; they soon covered the ground, and the work was done. The product is over 1000 bushels per acre; 3000 bushels the whole, notwithstanding one acre was partially seeded with carrots, and produced 200 bushels. About one acre of the land is fine sandy loam, and the remainder is slate washed from a ravine, all highly manured.

The ruta бага I think draws more from the atmosphere, and less from the soil, than any other vegetable; for I have always found it retained the dew longer, and held it in greater quantities, than any thing else. It leaves the ground in finer condition than any other crop, and cannot be too highly valued. The carrot is excellent for fattening cattle, milch cows, &c. but is not so sure a crop, and requires much more labor in tillage. It does not always come up well, and is very liable to be destroyed by the insect.

The Mangel Wurtzel—Of this root I planted one and a half acre on the 29th and 30th of May, (too late by ten days,) in drills twenty-one inches apart. Thinned once and hoed twice; tillage same as the ruta бага, (ashes and plaster omitted.) About two-thirds of the piece was planted with seed, which proved to be a mixed kind of all the beet family; the other one-third part was the pure seed. The crop was fine, and if all had been of the same kind, the product I think would have been one-fourth larger. But as it was, the yield may be considered a fair one—over 800 bushels per acre, and the whole 1250 bushels. See the importance of having genuine seed, for I have no doubt the product was 200 bushels less than it would have been had all the seed been pure mangel wurtzel. Reynolds & Bateham, of Rochester, have sold me genuine seeds, and I should have

confidence in any they will sell as such. I am much in favor of this root for feeding—probably it is equal to any, except the sugar beet.

The Sugar Beet—Of this I had only seed to plant six rods of ground. It seems to be well adapted to our soil and climate. The growth was much greater than any thing I have seen of the best kind. I have no doubt it will prove most valuable for feeding cattle, as well as for sugar. The product was over 80 bushels, and at the rate of about 2100 bushels per acre, or 63 tons. I rate all by weight, 60 lbs. to the bushel, for otherwise most of the roots could not be measured with any degree of accuracy. Here follows a statement of the produce of seven and a half and six-one hundred and sixtieth acres of what may be considered first rate corn land, and in a high state of cultivation.

	Whole product.	Per acre.
3 acres potatoes,	1800	433½
3 do. ruta бага, }	3000	1000
Carrots, }	200	800
1½ do. mangel wurtzel,	1250	800
6-160th sugar beets,	80	2100

7½ acres 6 rods 5890 bushels.

Five thousand eight hundred and thirty bushels, at 60 lbs. per bushel, give \$46,800 pounds, or 176 1-5 tons. The potatoes 13 tons, ruta бага 30 tons, carrots 24 tons, mangel wurtzel 24 tons, and the sugar beet at the rate of about 63 tons per acre. This crop last year would have brought more than \$2,300. What the price may be this year I know not. It is not my purpose to sell any, but to feed all to my cattle; so I have my own market, and trust I shall turn them to good account.

I am now feeding thirty-one head, at the rate of one bushel each per day, with hay nights and mornings, in their stalls, with corn and other coarse fodder through the day. I shall add to their allowance as shall seem proper, and change from one to the other now and then. All the cattle eat greedily, and are doing well.

Barn Cellars, Storage of Roots, and Manner of Feeding.

I have two barn cellars under the barn floors, which together hold 3000 bushels. They have each a small door at the back end, and scuttles through the floor—are well pointed and proof against frost. By opening the door and scuttles I can dispel the foul air or gas at pleasure, for large quantities of roots stored in cellars must be ventilated, or they will heat and spoil. These cellars are filled by drawing the loaded cart on the floor, and dumping the load through the scuttles—and the cellar is filled with very little labor.

The remainder of the crop were pulled and buried directly on the ground, such as potatoes, in heaps of about 33 bushels, leaving a small passage at the top, in order that the gas may pass off, without which they will not keep. In these two barns I stable 38 head of cattle, 31 of which are beef cattle, one pair of working oxen, and 5 milch cows—all convenient to feed from the cellars.—The roots are thrown upon the barn floor—cut with large English hay knives, which can be done by a smart man at the rate of a bushel per minute, and are passed to the manger with a scoop shovel. I have heard of cutting machines for

roots—never saw one, nor do I wish to. A good pair of hands, knife, and willing mind, is all the cutting machine I want. Every farmer should have a barn cellar; the cost is but little, and the advantage great. No one can know their value until he has one.

With good cattle, well constructed, clean, well littered stables, plenty of roots, and good hay, with card and curry-comb applied every day, I have fine cattle and good beef. Those roots should be extensively cultivated. They are within the reach of every man who farms any land, even one acre, and can be gauged to his wants. The poor man with his one acre and one cow, can at least plant six rods, and till it when he will do nothing else. See my 80 bushels of sugar beet from like quantity.

Let all raise according to his wants and means of feeding, depending on his own market, and omit raising a portion of other produce which costs him five times as much both in labor and land.—This fact I have made plain in the exhibit of the entire product of two acres of ruta бага, buried directly on the ground as I pulled them, in heaps of say 33 bushels, weight one ton, standing as thick as cocks of hay in common meadows of one hundred each. Twenty to one! To see is to be convinced.

The point to gain is to be able to take the greatest product with least labor from the land, and to return the whole or an equivalent back again.—Keep cattle, raise roots, &c., make manure, and one important point is gained; for with manure I can raise roots, and with roots fed to cattle I can make manure, and can pay back to the land as much as I received from it. I intend in due time to communicate the result of the feeding process this winter, and offer you something on other subjects, provided this effort in your opinion is worth the use of ink and types. Do with it as you please, and I am content.

I am, sir, respectfully, your ob't serv't.,
JOHN SANDFORD.
Marcellus, Dec. 26th, 1837.

FARMERS MUST HAVE THEIR WHEAT MORE COMPLETELY GROUND.

Mr. Holmes—For the purpose of shewing the fact that our wheat was capable of doing when well floured or ground, a very considerable premium was offered by the Kennebeck Co. Ag. Society, to be awarded to the manufacturer of the best barrel of flour ground at any mill within the county of Kennebeck. At the late Cattle Show and Fair, Mr. John Stanley of Winthrop, made an entry, claiming the premium for a barrel which was ground by him at the mill in Winthrop village. When wheat was one dollar per bushel, it was good business to grind it for a sixteenth, but wheat has risen to nearly two dollars per bushel; farmers therefore ought to have their wheat ground as well again as it was then, for they pay as much again—that is, the sixteenth that they now give is worth as much again when put into the market. I am sensible that they do not get their grinding done any better, if they do as well as they did when wheat was only one dollar per bushel. If that is a fact, then you in reality pay as much again, or double what it is worth to get your wheat ground. Are you contented to pay as much a-

gain as you ought for flouring? Let us hear what the adjudging committee say about the barrel of flour manufactured by Mr. Stanley. "Only one entry was made, and that by Mr. John Stanley, of Winthrop. We were informed that it was made from five bushels of Tea wheat, strict measure, from which was manufactured *two hundred thirty two and a half pounds of excellent flour*; which is one barrel, thirty-six and a half pounds." Now there must have been more or less coarse, which would not answer to go into that barrel of excellent flour—and there must have been also bran or canal, or whatever it is called, which is eatable by man or beast.

We state the account thus :
One bbl. excellent flour, worth \$10 00
Thirty-six and a half pounds, at the same 1 84
Say 20 lbs. of coarse, at \$8 per bbl. 81
Bran or canal, probably 40 lbs. worth say \$5 per bbl. 1 02
And the coarsest bran which is worth the grinding, or nearly so, \$13 67

Now see what your wheat is worth when a premium of \$5 is offered for flouring.

The committee farther remark, "a good specimen of what the farmers of our state can do, and your committee are of opinion that the time is not far distant, if not already come, when we shall not be under the necessity of going to New York to mill." What more is wanting but more and better grinding? A FLOUR-EATER.

P. S. If you will divide \$13,67 by 5, it will shew the worth of that wheat, and it will be found to be \$2,73 per bushel.—*Maine Farmer.*

Improvement in laying walls—Our friend Adam Mott informs us that he has found it quite an improvement where you build stone wall in low or wet land, to place a piece of cedar or hemlock across the wall every 2 or 3 feet, say 2 feet from the bottom.

It is said that where wood is required to be of great hardness and smoothness, as it sometimes is for mechanical purposes, that boiling it for a few minutes in olive oil, will give that desired property. Such wood is particularly adapted for the wheels of blocks or pulleys.

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old. EDWD. P. ROBERTS, - oc 3 Baltimore, Md.

GEESE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnet's stock, BOTH PURE WHITE. - oc 17 5t ROBERT SINCLAIR, sen.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal has been so fortunately supplied:

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.
Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,
JOSEPH H. JONES, President.
RICHARD J. BOWIE, Sec'y.
Rockville, Montgomery county, Md. Oct. 20, 1837.

ROBERT SINCLAIR'S NURSERY,
AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, lately planted with a most

CHOICE COLLECTION, from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the 1 each, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary. - oc 17 5t ROBERT SINCLAIR, senr.

AMERICAN FARMER.
A few complete sets for sale at this office.

CONTENTS OF THIS NUMBER.

Solicitation to agricultural readers for communications—rise in price of cotton in England—a good yield of corn—another good yield—proposition in the Maryland legislature for agricultural schools—Botsford's silk machinery—life of an English nobleman—judge Buel's address continued—a hint relative to laborers—on the management of a farm—successful cultivation of roots—on the grinding of wheat—improvement in laying wall—to harden wood for mechanical purposes—advertisements—prices current.

pairing the fertility of the soil, or the intrinsic value of his farm. To effect these objects, three prominent rules should be observed: The first is, *keep your land dry*; or in other words, free from all superfluous moisture. The second rule is—*keep your land clean*; or in other words, free from weeds. And the third is,—*keep your land rich*; or in other words, return to it, in the form of manure, all the refuse animal and vegetable matter which the farm affords.

Keep your land dry—The importance of draining is not duly appreciated, nor its practice well understood, among us. Although water is indispensable to vegetation, too much of it is as hurtful as too little. It is necessary to the germination of the seed, to the decomposition of the vegetable matter in the soil—to the transmission of the food from the soil to the plant—to its circulation there, and to the maturity of the product. All these useful purposes are defeated, where water remains in the soil to excess—the seed rots, the vegetable matter which should serve as the food of the crop, remains insoluble, in consequence of the absence of heat and air, which the water excludes; or, if the seed grows, the plant is sickly, for want of its proper food, and there is consequently a virtual failure in the harvest. It is not from the surface only that we are to determine whether land is sufficiently dry to support a healthy vegetation; but we are to examine the surface stratum, into which the roots of the plants penetrate, and from which they draw their food. If this is habitually wet—if it grows marshy plants—if water will collect in a hole sunk fifteen inches below the surface—the land is too wet for cultivated crops, and means should be adopted to render it more dry. From my partial acquaintance with this county, I feel assured that much of your best land is rendered unfit for tillage, or the growth of the finer grasses, by reason of the excess of water, which passes or reposes upon the subsoil, unnoticed by the cultivator. These lands are denominated cold and sour, and they truly are so. Cold, sour lands are invariably wet lands below, if not upon the surface. But if the superfluous water was judiciously conducted off by efficient underdrains, (for the construction of which, you possess the best of materials in abundance,) these lands would be rendered warm and sweet, and highly productive, and the outlay would be repaid by the increased value of two or three of the first crops. Wet lands are generally rich lands, abounding in vegetable matters, which water has preserved from decomposition, but which readily become the food of plants, when the water is drawn off. Let me imagine a case, which I am sure will be found to exist in many parts of your county. There is a slope of a hill, half a mile in extent, terminating in a flat 40 rods wide, through which a brook meanders. The soil on this slope, and in this flat, is of a light, porous quality, six to twelve inches deep, reposing on a subsoil impervious to water, as clay, rock, or hard-pan. By soil, I mean the upper stratum, in which vegetable matters are blended with the earthy material, and which constitutes the true pasture of plants. Near the top of this slope, all along on a horizontal level, or perhaps lower down, spouts or springs burst through the subsoil, a thing very common in hilly districts, the waters from which finding an easy passage through

the loose soil, spread and run down the slope, and upon the subsoil, and through the flat, till they find their level in the brook. A thermometer plunged down to the subsoil, will indicate, at midsummer, a temperature probably not greater than 60°, whereas to grow and mature many of our best farm crops, we require a heat in the soil of 70 or 80. How shall we remedy this evil, and render this land profitable to the occupant? Simply by making an underdrain or drains, in a gently inclining direction, a little below these spouts or springs, and, if practicable, somewhat into the subsoil. These will catch and conduct off the spouting waters, and by laying the lower plane dry and permeable to heat and air, develop all its natural powers of fertility.

I will suppose another case—that of a flat surface, underlaid by an impervious subsoil. This is rendered unproductive, or difficult to manage, by stagnant waters. The rain and snow waters, penetrating the soil, are arrested in their downward passage, by the subsoil, which not having slope to pass them off, they there remain and stagnate, and putrefy, alike prejudicial to vegetable and animal health. The mode of draining such grounds, and of rendering them productive and of easy management, is, first, to surround the field with a good underdrain, and to construct a sufficient open drain from the outlet to carry off the waters. Then with the plough, throw the land into ridges of twenty to thirty feet in breadth, according to the tenacity of the soil, in the direction of the slope, and sink an underdrain in each of the furrows between the ridges, terminating them in the lower cross drain. The materials of the underdrains, which are generally stones, should be laid so low as to admit of the free passage of the plough over them. The superfluous water, by the laws of gravitation, settle into these drains, and pass off, and the soil becomes dry, manageable and productive. An acquaintance called upon a Scotch farmer, whose farm had been underdrained in this way, and being informed that the improvement cost sixteen dollars an acre, tile having been used, remarked that it was a costly improvement. "Yes," was the farmer's reply, "but it costs a deal *mair* not to do it," which he illustrated by pointing to an adjoining farm, like situated, which had not been drained, and was overgrown with rushes and with sedge grass, and then to his own fields, teeming with luxuriance, and rich in the indications of an abundant harvest.

I have dwelt upon the subject of draining with more detail, because I have personally realized its benefits, and am sure it may be extensively gone into with the certain prospect of reward.

Keep your land clean—Weeds being generally indigenous, or well acclimated, are gross feeders, and exhaust the soil more in proportion to their size than cultivated crops. We should consider that farmer a reckless manager, who should suffer strange cattle to consume the food prepared for his farm stock. How much more is he deserving the name of an economist, who permits his crops to be robbed of their food, and consequently stunted in their growth, by thistles, daisies, dock and pig-weed?

An idea prevails with some, that weeds, by the shade they afford to the soil and to crops, prevent the exhalation of moisture in times of drought.

Precisely the reverse is the case. They exhaust the moisture of the soil in proportion to the surface of their leaves and stems. Some plants, it is affirmed, daily draw from the earth, and exhale from their superficies, more than their weight of moisture.

Keep your land rich—This is to be done by manuring, by pasturing, and by alternating crops. Most of this county, I believe, is devoted to cattle and sheep husbandry, for which it seems well adapted; and these branches of husbandry afford ample means of enriching the soil and enlarging the grain and root crops. Cattle and sheep make manure; manure makes grain, and grass, and roots—these in return feed the family, and make meat, milk and wool; and meat, milk and wool are virtually money, the great object of the farmer's ambition, and the reward of his labors. This is the farmer's magic chain, which, kept bright by use, is ever strong and sure; but if broken or suffered to corrode by neglect, its power and efficiency are lost.

You possess all the earthy elements of a good soil: clay, sand and lime. It is *your* province, and *your* duty to husband and apply the vegetable and most essential element of fertility—*manures*. These are as much the food of your crops, as your crops are food for your cattle, or family; and it is as vain to expect to perpetuate good crops, without manure, as it would be to expect fat beef and fat mutton, from stunted pasture or buckwheat straw. We see, then, that manures are the basis of good husbandry, whether we have reference to tillage or cattle farms; and that tillage and cattle reciprocally benefit each other.

It results from these facts, that a farmer should till no more land than he can keep *dry* and *clean*, and *rich*; and that he should keep no more stock than his crops will feed well, and that can be made profitable to the farm.

The farmer who makes but thirty bushels of corn, a dozen bushels of rye, or a ton of hay, from an acre of land, and there are not a few who fall short of this, is hardly remunerated for his labor: but he who gets these measures from half an acre, and every good farmer ought at least to do so, realizes a nett product of one half the value of his crop, or receives twice as much for his labor as the first does. The reason of this is, that the one permits his acre to become poor, either from not saving and applying his manure, or from spreading it and his labor over too much land, or by cropping it too long, while the other keeps his land rich, and thereby saves his labor. How is this disparity increased, when, instead of being double, the crop of the good farmer exceeds that of the bad farmer four-fold, incidents that very often happen on adjoining farms? If the latter gets one hundred dollars per annum for his labor, the former gets four hundred dollars for his labor. No inconsiderable item this, in the aggregate of a man's life, or in the profit and loss account of a large farm.

So with our animals. The food which parsimony, or indolence, or ill judged economy, doles out to a beast, and which barely keeps him two years, would, if judiciously fed out, fatten him in six months; and thereby convert three quarters of the food into meat, milk and money, which, in the other case, is expended to keep the animal alive. Time is money, as well in fattening animals and feeding crops, as in other expenditures of human labor.

Pasturing is a means of inducing fertility. It is computed to add twenty per cent. to the fertility of a first rate soil. This arises from two causes. All that is grown upon the soil, is returned to it in the droppings of the animals which graze upon it. And in the second place, when broken up by the plough, the sward is converted into food for tillage crops, and has been found to be equivalent, in a well set sod, to more than twelve loads of dung on the acre. In this way sheep husbandry is known to enrich lands rapidly. But this remark does not apply to meadows where the crop is carried off, and no equivalent returned to the soil, in the form of manure.

Alternation of crops is unquestionably one of the best and most economical means of preserving fertility, and of increasing the profits of the farm. All crops exhaust the soil more or less, of the general elements of fertility, though not to the same extent, nor do all exhaust it alike of certain specific properties. It is believed that every family of plants requires a specific food, which other families do not stand in need of, and which they do not take up. This is evinced by the fact that wheat cannot be grown profitably, in ordinary grounds, in two successive years, upon the same field, without a great falling off in the product. And it is now laid down as an axiom, in good husbandry, that two crops of any small grain, should never be taken from the same field in successive years, because they draw too largely upon the same specific food. But after an interval of four or five years, in which grass and roots intervene, the specific food of the wheat crop has so accumulated in the soil, that this grain may then be again profitably grown upon it. So with all other farm crops, not even excepting the grasses. The law of natural change in the products of a soil is so palpable, that in Flanders and Holland, where flax is one of the most profitable staples, they do not think of cultivating this crop upon the same ground, oftener than once in 10 or 12 years. Our farmers seem to appreciate these truths in reference to tillage crops, without duly reflecting, that they apply as well to grass as to grain. Meadows do deteriorate; in a few years, the finer grasses run out, because the soil becomes exhausted of the particular food which affords them nourishment; coarse or innutritious plants take their place, and the herbage becomes inferior in quality, and greatly diminished in quantity. Upon an average, old established meadows would yield double their present crops, if judiciously alternated with grain and root crops. The terms "suitably divided into meadow, plough and pasture lands," which are generally employed to recommend farms on sale, are an indication of bad husbandry, and very often betray the secret which compels the owner to sell. Excepting in very stony districts, every acre of land which will produce good grasses, may, by being rendered dry and rich, be made to produce good grain and roots. In the convertible system of husbandry, permanent meadow or plough lands are almost unknown—every field produces in turn crops of grain, grass and roots.

(To be continued.)

Without a vigilant supervision of your hands, you cannot expect to succeed, as the best require driving.

[From the Genesee Farmer.]

MANAGEMENT OF A FARM.

MR. TUCKER:—Your correspondent P. has requested some information as to the best manner of conducting his farm so as to improve and make it profitable. To give particular directions in such a case you will perceive is impossible, without a more full and minute knowledge of the farm occupied than has been given, and even then much must be left to the judgment of your correspondent. To work a farm successfully, a knowledge of the leading constituents of the soil, and the manner in which it has been treated, is necessary. Some soils are adapted to wheat, while on others it is produced with difficulty, and a quite uncertain crop; on the last the grasses are generally found to flourish, hence are good for grazing. As a general rule it may be said that a farm which will produce good wheat, is capable of producing any other crop of either grass or grain that the owner chooses to put upon it, and is therefore capable of any system of amelioration or improvement that experience or science may have devised. On the supposition that P.'s is of this class, I shall throw out a few hints, which may possibly be useful to him or to others in farming.

Experience has shown, what indeed theory indicated, that the successful management of the soil is most intimately connected with a rotation of crops; and the best manner in which such rotation could be brought about, has engaged the attention of most of the scientific and able farmers of the present time. The doctrine of rotation if founded on the simple but well established law of nature, that different plants require different kinds of food to support them—that they take this food from the soil in variable quantities, and consequently ground when exhausted for one plant, will sometimes produce an abundant growth of another; that such is the fact is shown by every day's observation of the process which governs the growth of plants. It may be remarked also, that plants derive their growth principally from decayed plants, and hence in a rotation of crops particular attention should be given to those that return the most to the soil on which they grow. Reference too must be had to the mode in which plants receive their nutrition. Some spread their roots near the surface of the earth, as wheat, rye, &c., while others, as the tap-rooted plants, draw their nourishment from a greater depth, scarcely throwing out a root near the surface.

Keeping these facts in view, the rotation of crops, and the alternate culture of every part of the farm, instead of ploughing one field year after year, or mowing another, has introduced a new era in agriculture, improving instead of impoverishing the farm, while the products and profits have in many instances more than doubled. In the system of rotation, the course of plants required for its completion must in some measure depend on the time to be gone through, whether four or six years, or, as is sometimes the case where immediate profits are required, only two or three are allowed. In Pennsylvania, where the system has reached great perfection, the course, as stated in the Farmer's Reporter, is as follows:—Corn the first year; this is always planted on sward ground,

carefully ploughed one, two or three weeks before the time of planting. The sward is well harrowed without disturbing the sod, marked off with rows three feet apart, in which the corn is planted in hills, one and a half or two feet apart. The corn is plastered when well up, and if too thick is thinned at hoeing. The next crop is oats or barley, sown the succeeding spring. This crop is followed by wheat, the ground being first thoroughly manured with barn yard manure. A rye crop follows the wheat, with which clover seed is sown in March. The clover remains two or three years, and is plastered, when the same rotation commences again.

Mr. Stevens, one of the most successful farmers on the Eastern Shore, Md., has given an account of his system of rotation or what he calls the "seven field system," and which after a long experience of other modes, he decidedly prefers. His farm is divided into seven fields, two of which are every year in corn, two in wheat, two clover, (one for mowing and the other for pasture,) and one, the stock field, vacant. Mr. Stevens says, "you will observe one corn crop annually will be on the clover, therefore as you do not turn in clover for fallow, which I consider of high importance, I would strongly recommend to have the clover field, (after taking therefrom a crop of seed,) reserved ungrazed, and turned in, in the fall, as a preparation for corn, by which means you procure all the advantage to be derived from the clover."

In Western New-York, where wheat is the great object, and clover is relied on as the great renovator of the soil, the course of cropping has a direct reference to that object. Where it has been required to make the most money in the shortest time, without reference to exhausting the soil, wheat after wheat has been resorted to, to a considerable extent. Where some regard has been had to the future state of the soil, as well as immediate profit, wheat, clover and wheat, have followed each other; and where the object has been to improve the soil as well as secure profit, a course embracing from four to six years, has been adopted, including wheat, clover, corn and roots. In a former volume of the "Farmer," a farmer of Monroe gave the following account of his system. "My 150 acres of plough land is divided into ten lots of 15 acres each. My course commences in spring with three fields in wheat, the rest all in clover, which is to be ploughed, must be sown with plaster. Fields Nos. 1, 2, 3, in wheat. No. 4, to receive the yard and stable manure, (which must always be the case with the hoe crops,) once ploughed for corn, potatoes, or other roots. No. 5, barley. No. 6, mow for wheat. No. 7, pasture for wheat. No. 8, meadow. No. 9, and 10, pasture. Of my 150 acres, 45 of them is annually in wheat;—15 in corn, potatoes or other roots;—14 in barley;—30 in clover preparatory to wheat;—45 for hay or pasture. If the corn ground is sown with wheat, the field which was intended to be mown as fallow may be ploughed in the spring for barley or oats, though the first is by most preferred. The barely stubble should be ploughed twice previous to sowing with wheat. The meadow which is to be sown with wheat, if broken up in July, must be ploughed twice; but if left till August, only once, but very carefully done: The pasture which is intended for wheat ought to

be broken up in June, and twice ploughed."

In the New-England Farmer for 1823—4, is a valuable paper from Judge Buel, detailing his course of four years, and of five, with a particular account of the expense of profits per acre. His four years course commenced in the spring with corn on land thoroughly manured, the sward turned over, rolled, and corn planted. In the fall corn cut up by the bottom, harrowed and ploughed, and sown with wheat. Second year wheat, with turnips after. Third year barley, with ten lbs. of clover seed per acre. Fourth year clover, pasture or mowing. In the five years course;—Indian corn as before. Second year, wheat with ten lbs. of clover seed per acre;—third year clover for mowing—after mowing turned over and ruta бага sown;—fourth year, barley and clover seed as before;—fifth year, clover for mowing or pasture. The manure in all cases to be applied to the corn or the turnips.

We think P. will find in the foregoing examples sufficient direction as to the most approved method of cropping or cultivating his farm so as to make it both durable and profitable. He must, however, bring his own judgment largely into requisition, or he will after all fail as a farmer. Experiments and books furnish results and principles—the application of them must depend on the individual. If his farm is destitute of fruit trees, let him apply to some nurseryman of established probity for a supply, and be careful that the selection is of the best kind, and adapted to his location. To plant poor fruit trees because they can be obtained cheaper, is miserable policy, and poor fruit is worse than nothing; and there are locations where expenses in procuring certain kinds of trees would be entirely thrown away, for they will not succeed. If P. wishes stock, let him procure good blood, and good formed animals, and he need not fear the result; the best in such cases are usually the cheapest in the end.

But if after all P. wishes to succeed as a farmer, he must attend to his farm himself. He must see there is a place for everything, and everything in its place; he must say to his laborers, *come, not go*; and he must know by personal observation that there is such a thing as the rising of the sun. With industry, prudence and economy, a farmer cannot fail to grow rich; and an increase of knowledge should be in an equal or increasing ratio.

[From the Genesee Farmer.]

SUCCESSFUL CULTIVATION OF ROOTS.

Mr. Tucker: My business is to work, and not to write for the press, but as you ask communications from the farmer, I will in my plain way, state what I have experienced in the cultivation of the Potato, Ruta Baga, Mangel Wurtzel, Carrot, and Sugar Beet; manner of feeding, storing, &c., and the quantity of roots I raised this season.

The Potato with me for ten years, the last excepted, has been a fair crop, but by adhering to the old method of tillage, has been more expensive than is necessary, as I find by the course I have adopted this season. I planted three acres the 29th and 30th of May; first ploughed, then manured with coarse barn-yard manure; then ploughed again and harrowed. Struck out the

rows three feet apart with a one-horse plough, say five inches deep; dropped the seed eighteen inches apart, turned back the furrow, and the work was done. For hoeing first and second time, the cultivator, so gaged as to fill the whole space between the rows, was passed through, followed by the hoe, giving a slight dressing, but making little or no hill, and the whole labor, after the ground was fitted, did not exceed three and a half days' work per acre. By the use of the plough the seed was planted deep; the potato never takes a downward direction. The cultivator loosened and mellowed the earth so as to allow the roots to extend, and to occupy nearly the whole row. *Get an expanding and contracting cultivator. Get one! Get one!!* The product was over 430 bushels per acre; 1300 bushels from the 3 acres.

The Ruta Baga I had cultivated to considerable extent for three years with success. This year I planted three acres in drills twenty-one inches apart, 26th and 27th of June. So soon as up, I sifted house ashes and plaster, mixed in equal quantities, at the rate of fifteen bushels per acre, with wire sieves, row by row, over the whole. The effect more than answered my expectations: that little pest, the turnip bug or fly, or its ravages, was not seen at all, and the growth was most vigorous. One acre of the piece had been planted with carrots, only about one-fourth of which was standing, by reason of the insect, bad seed, or both, and ruta бага was planted in all the vacant places in the rows. They were thinned out, and hoed twice; they soon covered the ground, and the work was done. The product is over 1000 bushels per acre; 3000 bushels the whole, notwithstanding one acre was partially seeded with carrots, and produced 200 bushels. About one acre of the land is fine sandy loam, and the remainder is slate washed from a ravine, all highly manured.

The ruta бага I think draws more from the atmosphere, and less from the soil, than any other vegetable; for I have always found it retained the dew longer, and held it in greater quantities, than any thing else. It leaves the ground in finer condition than any other crop, and cannot be too highly valued. The carrot is excellent for fattening cattle, milch cows, &c. but is not so sure a crop, and requires much more labor in tillage. It does not always come up well, and is very liable to be destroyed by the insect.

The Mangel Wurtzel—Of this root I planted one and a half acre on the 29th and 30th of May, (too late by ten days,) in drills twenty-one inches apart. Thinned once and hoed twice; tillage same as the ruta бага, (ashes and plaster omitted.) About two-thirds of the piece was planted with seed, which proved to be a mixed kind of all the beet family; the other one-third part was the pure seed. The crop was fine, and if all had been of the same kind, the product I think would have been one-fourth larger. But as it was, the yield may be considered a fair one—over 800 bushels per acre, and the whole 1250 bushels. See the importance of having genuine seed, for I have no doubt the product was 200 bushels less than it would have been had all the seed been pure mangel wurtzel. Reynolds & Bateham, of Rochester, have sold me genuine seeds, and I should have

confidence in any they will sell as such. I am much in favor of this root for feeding—probably it is equal to any, except the sugar beet.

The Sugar Beet—Of this I had only seed to plant six rods of ground. It seems to be well adapted to our soil and climate. The growth was much greater than any thing I have seen of the best kind. I have no doubt it will prove most valuable for feeding cattle, as well as for sugar. The product was over 80 bushels, and at the rate of about 2100 bushels per acre, or 63 tons. I rate all by weight, 60 lbs. to the bushel, for otherwise most of the roots could not be measured with any degree of accuracy. Here follows a statement of the produce of seven and a half and six-one hundred and sixtieth acres of what may be considered first rate corn land, and in a high state of cultivation.

	Whole product.	Per acre.
3 acres potatoes,	1800	433½
3 do. ruta бага, }	3000	1000
Carrots, }	200	800
1½ do. mangel wurtzel,	1250	800
6-160th sugar beets,	80	2100

7½ acres 6 rods 5890 bushels.

Five thousand eight hundred and thirty bushels, at 60 lbs. per bushel, give 346,800 pounds, or 176 1-5 tons. The potatoes 13 tons, ruta бага 30 tons, carrots 24 tons, mangel wurtzel 24 tons, and the sugar beet at the rate of about 63 tons per acre. This crop last year would have brought more than \$2,300. What the price may be this year I know not. It is not my purpose to sell any, but to feed all to my cattle; so I have my own market, and trust I shall turn them to good account.

I am now feeding thirty-one head, at the rate of one bushel each per day, with hay nights and mornings, in their stalls, with corn and other coarse fodder through the day. I shall add to their allowance as shall seem proper, and change from one to the other now and then. All the cattle eat greedily, and are doing well.

Barn Cellars, Storage of Roots, and Manner of Feeding.

I have two barn cellars under the barn floors, which together hold 3000 bushels. They have each a small door at the back end, and scuttles through the floor—are well pointed and proof against frost. By opening the door and scuttles I can dispel the foul air or gas at pleasure, for large quantities of roots stored in cellars must be ventilated, or they will heat and spoil. These cellars are filled by drawing the loaded cart on the floor, and dumping the load through the scuttles—and the cellar is filled with very little labor.

The remainder of the crop were pulled and buried directly on the ground, such as potatoes, in heaps of about 33 bushels, leaving a small passage at the top, in order that the gas may pass off, without which they will not keep. In these two barns I stable 38 head of cattle, 31 of which are beef cattle, one pair of working oxen, and 5 milch cows—all convenient to feed from the cellars. The roots are thrown upon the barn floor—cut with large English hay knives, which can be done by a smart man at the rate of a bushel per minute, and are passed to the manger with a scoop shovel. I have heard of cutting machines for

roots—never saw one, nor do I wish to. A good pair of hands, knife, and willing mind, is all the cutting machine I want. Every farmer should have a barn cellar; the cost is but little, and the advantage great. No one can know their value until he has one.

With good cattle, well constructed, clean, well littered stables, plenty of roots, and good hay, with card and curry-comb applied every day, I have fine cattle and good beef. Those roots should be extensively cultivated. They are within the reach of every man who farms any land, even one acre, and can be gauged to his wants. The poor man with his one acre and one cow, can at least plant six rods, and till it when he will do nothing else. See my 80 bushels of sugar beet from like quantity.

Let all raise according to his wants and means of feeding, depending on his own market, and omit raising a portion of other produce which costs him five times as much both in labor and land.—This fact I have made plain in the exhibit of the entire product of two acres of ruta бага, buried directly on the ground as I pulled them, in heaps of say 33 bushels, weight one ton, standing as thick as cocks of hay in common meadows of one hundred each. Twenty to one! To see is to be convinced.

The point to gain is to be able to take the greatest product with least labor from the land, and to return the whole or an equivalent back again.—Keep cattle, raise roots, &c., make manure, and one important point is gained; for with manure I can raise roots, and with roots fed to cattle I can make manure, and can pay back to the land as much as I received from it. I intend in due time to communicate the result of the feeding process this winter, and offer you something on other subjects, provided this effort in your opinion is worth the use of ink and types. Do with it as you please, and I am content.

I am, sir, respectfully, your ob't serv't.,
JOHN SANDFORD.

Marcellus, Dec. 26th, 1837.

FARMERS MUST HAVE THEIR WHEAT MORE COMPLETELY GROUND.

Mr. Holmes—For the purpose of shewing the fact what our wheat was capable of doing when well floured or ground, a very considerable premium was offered by the Kennebeck Co. Ag. Society, to be awarded to the manufacturer of the best barrel of flour ground at any mill within the county of Kennebeck. At the late Cattle Show and Fair, Mr. John Stanley of Winthrop, made an entry, claiming the premium for a barrel which was ground by him at the mill in Winthrop village. When wheat was one dollar per bushel, it was good business to grind it for a sixteenth, but wheat has risen to nearly two dollars per bushel; farmers therefore ought to have their wheat ground as well again as it was then, for they pay as much again—that is, the sixteenth that they now give is worth as much again when put into the market. I am sensible that they do not get their grinding done any better, if they do as well as they did when wheat was only one dollar per bushel. If that is a fact, then you in reality pay as much again, or double what it is worth to get your wheat ground. Are you contented to pay as much a-

gain as you ought for flouring? Let us hear what the adjudging committee say about the barrel of flour manufactured by Mr. Stanley. "Only one entry was made, and that by Mr. John Stanley, of Winthrop. We were informed that it was made from five bushels of Tea wheat, strict measure, from which was manufactured *two hundred thirty two and a half pounds of excellent flour*; which is one barrel, thirty-six and a half pounds." Now there must have been more or less coarse, which would not answer to go into that barrel of excellent flour—and there must have been also bran or canal, or whatever it is called, which is eatable by man or beast.

We state the account thus:

One bbl. excellent flour, worth	\$10 00
Thirty-six and a half pounds, at the same	1 84
Say 20 lbs. of coarse, at \$8 per bbl.	81
Bran or canal, probably 40 lbs. worth say	
\$5 per bbl.	1 02
And the coarsest bran which is worth the grinding, or nearly so,	
	\$13 67

Now see what your wheat is worth when a premium of \$5 is offered for flouring.

The committee farther remark, "a good specimen of what the farmers of our state can do, and your committee are of opinion that the time is not far distant, if not already come, when we shall not be under the necessity of going to New York to mill." What more is wanting but more and better grinding?

A FLOUR-EATER.

P. S. If you will divide \$13.67 by 5, it will shew the worth of that wheat, and it will be found to be \$2.73 per bushel.—*Maine Farmer.*

Improvement in laying walls—Our friend Adam Mott informs us that he has found it quite an improvement where you build stone wall in low or wet land, to place a piece of cedar or hemlock across the wall every 2 or 3 feet, say 2 feet from the bottom.

It is said that where wood is required to be of great hardness and smoothness, as it sometimes is for mechanical purposes, that boiling it for a few minutes in olive oil, will give that desired property. Such wood is particularly adapted for the wheels of blocks or pulleys.

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old. EDWD. P. ROBERTS, oc 3 Baltimore, Md.

GEESE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnet's stock, BOTH PURE WHITE. oc 17 5t ROBERT SINCLAIR, senr.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.
Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,
JOSEPH H. JONES, President.
RICHARD J. BOWIE, Sec'y.
Rockville, Montgomery county, Md. Oct. 20, 1837.

ROBERT SINCLAIR'S NURSERY, AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most

CHOICE COLLECTION,

from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, Eng-

lish Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary. oc 17 5t

ROBERT SINCLAIR, senr.

AMERICAN FARMER.

A few complete sets for sale at this office.

CONTENTS OF THIS NUMBER.

Solicitation to agricultural readers for communications—rise in price of cotton in England—a good yield of corn—another good yield—proposition in the Maryland legislature for agricultural schools—Botsford's silk machinery—life of an English nobleman—judge Buel's address continued—a hint relative to laborers—on the management of a farm—successful cultivation of roots—on the grinding of wheat—improvement in laying wall—to harden wood for mechanical purposes—advertisements—prices current.

pairing the fertility of the soil, or the intrinsic value of his farm. To effect these objects, three prominent rules should be observed: The first is, *keep your land dry*; or in other words, free from all superfluous moisture. The second rule is—*keep your land clean*; or in other words, free from weeds. And the third is,—*keep your land rich*; or in other words, return to it, in the form of manure, all the refuse animal and vegetable matter which the farm affords.

Keep your land dry—The importance of draining is not duly appreciated, nor its practice well understood, among us. Although water is indispensable to vegetation, too much of it is as hurtful as too little. It is necessary to the germination of the seed, to the decomposition of the vegetable matter in the soil—to the transmission of the food from the soil to the plant—to its circulation there, and to the maturity of the product. All these useful purposes are defeated, where water remains in the soil to excess—the seed rots, the vegetable matter which should serve as the food of the crop, remains insoluble, in consequence of the absence of heat and air, which the water excludes; or, if the seed grows, the plant is sickly, for want of its proper food, and there is consequently a virtual failure in the harvest. It is not from the surface only that we are to determine whether land is sufficiently dry to support a healthy vegetation; but we are to examine the surface stratum, into which the roots of the plants penetrate, and from which they draw their food. If this is habitually wet—if it grows marshy plants—if water will collect in a hole sunk fifteen inches below the surface—the land is too wet for cultivated crops, and means should be adopted to render it more dry. From my partial acquaintance with this county, I feel assured that much of your best land is rendered unfit for tillage, or the growth of the finer grasses, by reason of the excess of water, which passes or reposes upon the subsoil, unnoticed by the cultivator. These lands are denominated cold and sour, and they truly are so. Cold, sour lands are invariably wet lands below, if not upon the surface. But if the superfluous water was judiciously conducted off by efficient underdrains, (for the construction of which, you possess the best of materials in abundance,) these lands would be rendered warm and sweet, and highly productive, and the outlay would be repaid by the increased value of two or three of the first crops. Wet lands are generally rich lands, abounding in vegetable matters, which water has preserved from decomposition, but which readily become the food of plants, when the water is drawn off. Let me imagine a case, which I am sure will be found to exist in many parts of your county. There is a slope of a hill, half a mile in extent, terminating in a flat 40 rods wide, through which a brook meanders. The soil on this slope, and in this flat, is of a light, porous quality, six to twelve inches deep, reposing on a subsoil impervious to water, as clay, rock, or hard-pan. By soil, I mean the upper stratum, in which vegetable matters are blended with the earthy material, and which constitutes the true pasture of plants. Near the top of this slope, all along on a horizontal level, or perhaps lower down, spouts or springs burst through the subsoil, a thing very common in hilly districts, the waters from which finding an easy passage through

the loose soil, spread and run down the slope, and upon the subsoil, and through the flat, till they find their level in the brook. A thermometer plunged down to the subsoil, will indicate, at midsummer, a temperature probably not greater than 60°, whereas to grow and mature many of our best farm crops, we require a heat in the soil of 70 or 80. How shall we remedy this evil, and render this land profitable to the occupant? Simply by making an underdrain or drains, in a gently inclining direction, a little below these spouts or springs, and, if practicable, somewhat into the subsoil. These will catch and conduct off the spouting waters, and by laying the lower plane dry and permeable to heat and air, develop all its natural powers of fertility.

I will suppose another case—that of a flat surface, underlaid by an impervious subsoil. This is rendered unproductive, or difficult to manage, by stagnant waters. The rain and snow waters, penetrating the soil, are arrested in their downward passage, by the subsoil, which not having slope to pass them off, they there remain and stagnate, and putrefy, alike prejudicial to vegetable and animal health. The mode of draining such grounds, and of rendering them productive and of easy management, is, first, to surround the field with a good underdrain, and to construct a sufficient open drain from the outlet to carry off the waters. Then with the plough, throw the land into ridges of twenty to thirty feet in breadth, according to the tenacity of the soil, in the direction of the slope, and sink an underdrain in each of the furrows between the ridges, terminating them in the lower cross drain. The materials of the underdrains, which are generally stones, should be laid so low as to admit of the free passage of the plough over them. The superfluous water, by the laws of gravitation, settle into these drains, and pass off, and the soil becomes dry, manageable and productive. An acquaintance called upon a Scotch farmer, whose farm had been underdrained in this way, and being informed that the improvement cost sixteen dollars an acre, tile having been used, remarked that it was a costly improvement. "Yes," was the farmer's reply, "but it costs a deal *mair* not to do it," which he illustrated by pointing to an adjoining farm, like situated, which had not been drained, and was overgrown with rushes and with sedge grass, and then to his own fields, teeming with luxuriance, and rich in the indications of an abundant harvest.

I have dwelt upon the subject of draining with more detail, because I have personally realized its benefits, and am sure it may be extensively gone into with the certain prospect of reward.

Keep your land clean—Weeds being generally indigenous, or well acclimated, are gross feeders, and exhaust the soil more in proportion to their size than cultivated crops. We should consider that farmer a reckless manager, who should suffer strange cattle to consume the food prepared for his farm stock. How much more is he deserving the name of an economist, who permits his crops to be robbed of their food, and consequently stunted in their growth, by thistles, daisies, dock and pig-weed?

An idea prevails with some, that weeds, by the shade they afford to the soil and to crops, prevent the exhalation of moisture in times of drought.

Precisely the reverse is the case. They exhaust the moisture of the soil in proportion to the surface of their leaves and stems. Some plants, it is affirmed, daily draw from the earth, and exhale from their superficies, more than their weight of moisture.

Keep your land rich—This is to be done by manuring, by pasturing, and by alternating crops. Most of this county, I believe, is devoted to cattle and sheep husbandry, for which it seems well adapted; and these branches of husbandry afford ample means of enriching the soil and enlarging the grain and root crops. Cattle and sheep make manure; manure makes grain, and grass, and roots—these in return feed the family, and make meat, milk and wool; and meat, milk and wool are virtually money, the great object of the farmer's ambition, and the reward of his labors. This is the farmer's magic chain, which, kept bright by use, is ever strong and sure; but if broken or suffered to corrode by neglect, its power and efficiency are lost.

You possess all the earthy elements of a good soil: clay, sand and lime. It is *your* province, and *your* duty to husband and apply the vegetable and most essential element of fertility—*manures*. These are as much the food of your crops, as your crops are food for your cattle, or family; and it is as vain to expect to perpetuate good crops, without manure, as it would be to expect fat beef and fat mutton, from stunted pasture or buckwheat straw. We see, then, that manures are the basis of good husbandry, whether we have reference to tillage or cattle farms; and that tillage and cattle reciprocally benefit each other.

It results from these facts, that a farmer should till no more land than he can keep *dry* and *clean*, and *rich*; and that he should keep no more stock than his crops will feed well, and that can be made profitable to the farm.

The farmer who makes but thirty bushels of corn, a dozen bushels of rye, or a ton of hay, from an acre of land, and there are not a few who fall short of this, is hardly remunerated for his labor: but he who gets these measures from half an acre, and every good farmer ought at least to do so, realizes a nett product of one half the value of his crop, or receives twice as much for his labor as the first does. The reason of this is, that the one permits his acre to become poor, either from not saving and applying his manure, or from spreading it and his labor over too much land, or by cropping it too long, while the other keeps his land rich, and thereby saves his labor. How is this disparity increased, when, instead of being double, the crop of the good farmer exceeds that of the bad farmer four-fold, incidents that very often happen on adjoining farms? If the latter gets one hundred dollars per annum for his labor, the former gets four hundred dollars for his labor. No inconsiderable item this, in the aggregate of a man's life, or in the profit and loss account of a large farm.

So with our animals. The food which parsimony, or indolence, or ill judged economy, doles out to a beast, and which barely keeps him two years, would, if judiciously fed out, fatten him in six months; and thereby convert three quarters of the food into meat, milk and money, which, in the other case, is expended to keep the animal alive. Time is money, as well in fattening animals and feeding crops, as in other expenditures of human labor.

Pasturing is a means of inducing fertility. It is computed to add twenty per cent. to the fertility of a first rate soil. This arises from two causes. All that is grown upon the soil, is returned to it in the droppings of the animals which graze upon it. And in the second place, when broken up by the plough, the sward is converted into food for tillage crops, and has been found to be equivalent, in a well set sod, to more than twelve loads of dung on the acre. In this way sheep husbandry is known to enrich lands rapidly. But this remark does not apply to meadows where the crop is carried off, and no equivalent returned to the soil, in the form of manure.

Alternation of crops is unquestionably one of the best and most economical means of preserving fertility, and of increasing the profits of the farm. All crops exhaust the soil more or less, of the general elements of fertility, though not to the same extent, nor do all exhaust it alike of certain specific properties. It is believed that every family of plants requires a specific food, which other families do not stand in need of, and which they do not take up. This is evinced by the fact that wheat cannot be grown profitably, in ordinary grounds, in two successive years, upon the same field, without a great falling off in the product. And it is now laid down as an axiom, in good husbandry, that two crops of any small grain, should never be taken from the same field in successive years, because they draw too largely upon the same specific food. But after an interval of four or five years, in which grass and roots intervene, the specific food of the wheat crop has so accumulated in the soil, that this grain may then be again profitably grown upon it. So with all other farm crops, not even excepting the grasses. The law of natural change in the products of a soil is so palpable, that in Flanders and Holland, where flax is one of the most profitable staples, they do not think of cultivating this crop upon the same ground, oftener than once in 10 or 12 years. Our farmers seem to appreciate these truths in reference to tillage crops, without duly reflecting, that they apply as well to grass as to grain. Meadows do deteriorate; in a few years, the finer grasses run out, because the soil becomes exhausted of the particular food which affords them nourishment; coarse or innutritious plants take their place, and the herbage becomes inferior in quality, and greatly diminished in quantity. Upon an average, old established meadows would yield double their present crops, if judiciously alternated with grain and root crops. The terms "suitably divided into meadow, plough and pasture lands," which are generally employed to recommend farms on sale, are an indication of bad husbandry, and very often betray the secret which compels the owner to sell. Excepting in very stony districts, every acre of land which will produce good grasses, may, by being rendered dry and rich, be made to produce good grain and roots. In the convertible system of husbandry, permanent meadow or plough lands are almost unknown—every field produces in turn crops of grain, grass and roots.

(To be continued.)

Without a vigilant supervision of your hands, you cannot expect to succeed, as the best require driving.

[From the Genesee Farmer.]

MANAGEMENT OF A FARM.

MR. TUCKER:—Your correspondent P. has requested some information as to the best manner of conducting his farm so as to improve and make it profitable. To give particular directions in such a case you will perceive is impossible, without a more full and minute knowledge of the farm occupied than has been given, and even then much must be left to the judgment of your correspondent. To work a farm successfully, a knowledge of the leading constituents of the soil, and the manner in which it has been treated, is necessary. Some soils are adapted to wheat, while on others it is produced with difficulty, and a quite uncertain crop; on the last the grasses are generally found to flourish, hence are good for grazing. As a general rule it may be said that a farm which will produce good wheat, is capable of producing any other crop of either grass or grain that the owner chooses to put upon it, and is therefore capable of any system of amelioration or improvement that experience or science may have devised. On the supposition that P.'s is of this class, I shall throw out a few hints, which may possibly be useful to him or to others in farming.

Experience has shown, what indeed theory indicated, that the successful management of the soil is most intimately connected with a rotation of crops; and the best manner in which such rotation could be brought about, has engaged the attention of most of the scientific and able farmers of the present time. The doctrine of rotation if founded on the simple but well established law of nature, that different plants require different kinds of food to support them—that they take this food from the soil in variable quantities, and consequently ground when exhausted for one plant, will sometimes produce an abundant growth of another; that such is the fact is shown by every day's observation of the process which governs the growth of plants. It may be remarked also, that plants derive their growth principally from decayed plants, and hence in a rotation of crops particular attention should be given to those that return the most to the soil on which they grow. Reference too must be had to the mode in which plants receive their nutrition. Some spread their roots near the surface of the earth, as wheat, rye, &c., while others, as the tap-rooted plants, draw their nourishment from a greater depth, scarcely throwing out a root near the surface.

Keeping these facts in view, the rotation of crops, and the alternate culture of every part of the farm, instead of ploughing one field year after year, or mowing another, has introduced a new era in agriculture, improving instead of impoverishing the farm, while the products and profits have in many instances more than doubled. In the system of rotation, the course of plants required for its completion must in some measure depend on the time to be gone through, whether four or six years, or, as is sometimes the case where immediate profits are required, only two or three are allowed. In Pennsylvania, where the system has reached great perfection, the course, as stated in the Farmer's Reporter, is as follows:—Corn the first year; this is always planted on sward ground,

carefully ploughed one, two or three weeks before the time of planting. The sward is well harrowed without disturbing the sod, marked off with rows three feet apart, in which the corn is planted in hills, one and a half or two feet apart. The corn is plastered when well up, and if too thick is thinned at hoeing. The next crop is oats or barley, sown the succeeding spring. This crop is followed by wheat, the ground being first thoroughly manured with barn yard manure. A rye crop follows the wheat, with which clover seed is sown in March. The clover remains two or three years, and is plastered, when the same rotation commences again.

Mr. Stevens, one of the most successful farmers on the Eastern Shore, Md., has given an account of his system of rotation or what he calls the "seven field system," and which after a long experience of other modes, he decidedly prefers. His farm is divided into seven fields, two of which are every year in corn, two in wheat, two clover, (one for mowing and the other for pasture,) and one, the stock field, vacant. Mr. Stevens says, "you will observe one corn crop annually will be on the clover, therefore as you do not turn in clover for fallow, which I consider of high importance, I would strongly recommend to have the clover field, (after taking therefrom a crop of seed,) reserved ungrazed, and turned in, in the fall, as a preparation for corn, by which means you procure all the advantage to be derived from the clover."

In Western New-York, where wheat is the great object, and clover is relied on as the great renovator of the soil, the course of cropping has a direct reference to that object. Where it has been required to make the most money in the shortest time, without reference to exhausting the soil, wheat after wheat has been resorted to, to a considerable extent. Where some regard has been had to the future state of the soil, as well as immediate profit, wheat, clover and wheat, have followed each other; and where the object has been to improve the soil as well as secure profit, a course embracing from four to six years, has been adopted, including wheat, clover, corn and roots. In a former volume of the "Farmer," a farmer of Monroe gave the following account of his system. "My 150 acres of plough land is divided into ten lots of 15 acres each. My course commences in spring with three fields in wheat, the rest all in clover, which is to be ploughed, must be sown with plaster. Fields Nos. 1, 2, 3, in wheat. No. 4, to receive the yard and stable manure, (which must always be the case with the hoe crops,) once ploughed for corn, potatoes, or other roots. No. 5, barley. No. 6, mow for wheat. No. 7, pasture for wheat. No. 8, meadow. No. 9, and 10, pasture. Of my 150 acres, 45 of them is annually in wheat;—15 in corn, potatoes or other roots;—14 in barley;—30 in clover preparatory to wheat;—45 for hay or pasture. If the corn ground is sown with wheat, the field which was intended to be mown as fallow may be ploughed in the spring for barley or oats, though the first is by most preferred. The barely stubble should be ploughed twice previous to sowing with wheat. The meadow which is to be sown with wheat, if broken up in July, must be ploughed twice; but if left till August, only once, but very carefully done: The pasture which is intended for wheat ought to

course of culture previously pursued. Indeed, it could not be otherwise, as all meetings of such bodies serve to concentrate and bring together the intelligence and enterprise of the several districts; the members, by an interchange of sentiments and comparison of views, impart to each other information of the first importance. The laudable struggle, too, for premiums, enlists a generous spirit of emulation, as worthy of the actors as are its effects salutary and wholesome. Each member, whether successful or otherwise, returns to his homestead filled with ambition to succeed at the next meeting of his society; he husband his resources of manure and labor, and by pursuing a judicious and well conceived course of culture, in a few years makes *one acre* produce what it had required *two* to do before, thus increasing his sources of competency and wealth, and adding immeasurably to the comforts and happiness of his family.

In conclusion, we would be permitted to indulge in the fond hope, that the present Legislature of Maryland will not adjourn without enacting such laws as will promote the welfare of the agricultural community, whose true interests have been too long neglected, and whose depressed condition calls for prompt and efficient relief.

[From the Silk Culturist.]

BOTSFORD'S SILK MACHINERY.

By the following letter from Mr. Botsford, we are pleased to learn that he has at last, perfected his machinery, and will soon submit it to the inspection of silk manufacturers. From the description of it, it will be seen that it is adapted to the manufacture of sewing silk, twist, organzine, tram, &c. and on account of its simplicity and cheapness is within the reach of silk growers of the most limited means. Ever since our first interview with Mr. B. at which he explained to us the principles and construction of his machinery, we have had strong faith in its utility, and have regretted that the public should be so long deprived of the opportunity of giving it a trial. Though we consider the growth of the raw material the prominent object at present, yet we have no doubt it will be promoted by the invention of cheap machinery, with which the more simple branches of manufacture may be commenced. Notwithstanding the growth and manufacture of silk, both in Europe and India, are distinct objects of enterprise, and no doubt will ultimately be in this country, yet they may be advantageously united in the infancy of the business, at any rate so far as the manufacture of sewing silk, &c. is concerned. The very great profit on this kind of manufacture will encourage the grower to persevere in his new vocation and give him an additional reward for his labor.

Mr. B. is an early and ardent friend of the silk enterprise in this country, and we hope he will receive, what he certainly deserves, a liberal re-

muneration for his labors in its behalf. Such of our correspondents as have inquired for Mr. B's machinery, will also be gratified to learn that their orders can soon be filled.

ROXBURY, Ct., Nov. 12th, 1837.

F. G. COMSTOCK, Esq.

Sir,—Having now perfected and fully tested my machinery, I am able to give you and the public that are interested, a few particulars respecting it. A machine of 24 spindles will complete sewings, as fast as eight girls can reel; and one doubling machine, cost \$5, will answer for sixty. It is easy to calculate what one will perform, of a given number of spindles, as they will stand about two thousand revolutions a minute, that is, any one acquainted with spinning machinery—a new beginner can go on, the first day, and make perfect sewings, and continue for any length of time without even breaking one thread, or entangling a skein; and consequently without any waste at all—and I hesitate not to say, that it is an improvement on all plans in existence, and the only practicable one for new beginners. To accommodate those who wish to commence on a small scale, and would not like to incur the expense of a spinner, I can construct and unite the reel and doubling machine in one frame at a cost of \$8.00 with a set of spools, which can be spun off on a common wheel—or, if any have got Dales' reel, it might be made to answer with the aid of my doubler, as that is indispensable and what removes all existing difficulties in the manufacturing of silk. With the aid of my machinery it requires not half the skill to make good thread, as it does from flax.

I have also invented a cast iron stove and pan, that no one will do without after having seen with what ease a person can sit and reel, and keep a proper temperature to the water. The whole apparatus necessary to do business with the greatest ease, will cost \$50 00. Comprising reel, double spinner, (both of them combined or built separate); stove and pan, reel to put it into skeins for market, set of spools, &c. A machine of six spindles for the price above named.

Yours, &c.

ISAAC G. BOTSFORD.

P. S. I have omitted one important particular.—The machine is so constructed that you may place a coarse thread to one spindle, and a fine one to the next, and give to each any twist required.

I. G. B.

POLSLEY'S MILLS, Va., Nov. 28th, 1837.

F. G. COMSTOCK, Esq.

Dear Sir,—Having been an attentive reader of the Silk Culturist, as well as many other periodicals on the subject, culture and manufacture of silk, and feeling a deep interest in their success in the United States, and having read of various experiments in feeding worms, and of various fixtures for the worms to wind their cocoons on, I have been induced to try some experiments myself. Although a beginner in the business, it may possibly be some satisfaction to some of your readers, to hear the results of my experiments.—About the twentieth of May last, I hatched about 200 silk worms and fed them about five weeks, when they commenced spinning and made good cocoons.

On the 4th, 5th, and 6th of June, the second crop hatched and fed 30 days, and were healthy, and made 4,000 good cocoons. On the 13th, 14th, 15th, and 16th of June, the third crop hatched, and fed well, and were healthy until the 26th day after hatching, at which time, many of them were attacked with a disease called the yellows, which carried off half of them; the remainder spun their cocoons, 3,000 in number, but they were small, and light. The above worms were from last year's eggs. The fourth crop hatched, on the 29th July, and fed about 26 days, and were very healthy, and made large cocoons. The fifth crop hatched on the 7th, 9th, 11th, and 13th of August, and spun in 26 days after hatching, and were healthy and made good large cocoons. Of the fourth and fifth crops, which made 42 knots of silk on Dales' reel, four threads of which, made good sewing silk. The fourth and fifth crops were from eggs of this year's produce.

It appears, that eggs will not hatch *regularly* the *same season* which they are *laid*. Having read various opinions on that subject, I thought I would try some experiments, and accordingly obtained a few eggs, about the 12th of August in 1836, and exposed them to the common atmosphere, and not one of them hatched that season.

Although some of the same stock from which I got them did hatch, (to the number of about 280) about six weeks or two months before. About the 20th of May, I exposed the few eggs last mentioned, together with about 4,000 of the same stock, and in about a week after, they all hatched out, that is, they hatched on the 4th, 5th and 6th June.

I left about 6 or 8000 eggs, deposited this season, on the hurdles, in hopes that they would hatch, as they were sent for the *two crop, or white worm*, and 300 of them hatched. About the same time, I examined those that were in the cellar, and found that 2 or 300 of them, had hatched also. I then exposed 6 or 7,000 of those in the cellar to the common atmosphere, but not another worm of them hatched this season.

The plan I have adopted for feeding frames is similar to that of Mr. Whitmarsh of Northampton, Mass. with this difference, that instead of having all the hurdles of one size, I have them arranged in the following manner: My hurdle frame is about 3 feet wide, divided as follows—the first hurdle, for the worms when first hatched, is a thin board 13 inches wide, the second hurdle is a frame covered with millinet which is two feet wide, with a paper slide underneath. The third hurdle is a frame covered with net work, four feet wide; and the fourth hurdle is six feet in front covered with net work, and a slide underneath, as above. This plan is designed for successive crops, and answers a good purpose, with one exception, which is, that, when the worms are spinning some of the worms are inclined to spin between the net work and paper slides, and by drawing the slides, in order to clean off the litter, you will disturb the worms in their labor, and of course, those so disturbed are lost. But in order to obviate that difficulty, I dropped the slide one and a half inches lower, so that they could not reach from the net work to the paper slides below. I have tried Mr. Whitmarsh's plan for the worms to spin on, and I have substituted small lath for his net

work, and the worms appear better pleased with the lath, than the net work. I have tried the plan of 7-8th inch holes in one and three fourth inch plank. The holes answered a good purpose, but are too expensive unless made by a machine for that purpose.

I have invented a plan, which pleases me better than any I have seen, or read of. It is to take a thick plank, five-eighths of an inch thick, and 7 or 8 inches wide, with legs about one and a half inches long at the bottom edge of the plank, and form shelves by running grooves in each side of the plank, about seven-eighths of an inch apart, and take a thin board, from one-eighth to one-fourth of an inch thick, and slit off pieces wide enough to fill the grooves, and to project about seven-eighths of an inch, so as to form small shelves. This gives them just room to form their cocoons. The worms appear better pleased with this plan, than any other, I have tried, and no litter can fall from one worm on to another, and of course the cocoons are kept entirely free from any litter whatever.

I have made a silk reel after Dales' plan, and have succeeded in reeling about three lbs. of silk, and have manufactured about 500 skeins of sewing silk, a part of which, is said to be as good as most of the imported. The above silk was manufactured on the common wheel, but I intend to get a small spinning machine, before I manufacture much more. I do not expect to make much silk the next season, but the following year I am in hopes I shall be able to make from 40 to 50 lbs. of silk, if I have good luck with my trees and cuttings, as I have Italian and Chinese trees and cuttings, sufficient to stock about three acres of land, which I have lately purchased for that purpose. I shall have about 3,000 Italian trees two years old for sale this fall, or next spring. I would sell them this fall, if called for. I have about 160,000 silk worm eggs for sale also, both of which I will sell as reasonably as they can be had at any regular market.

Yours, &c.

E. NEWCOMB, P. M.

P. S.—Please state in your next number which Spinning Machine you would prefer for a small establishment, *Botsford's* or *Brooks's*?

E. N.

ANSWER BY THE EDITOR.—It is impossible for us to say with certainty which of the machines, *Brooks's* or *Botsford's*, we should prefer, as we have not, as yet, seen the latter. A description of it, however, will be found in Mr. *Botsford's* letter, to which we would refer the inquirer. Mr. *Brooks's* machine has been hitherto considered the best in use for the manufacture of sewing silk in families, and its merits compared with Mr. *Botsford's* cannot be correctly estimated until the latter has been tested by experimental manufacturers. Our opinion of it however, will be found in a few prefatory remarks to his letter.

[Correspondence of the Boston Transcript.]

LIFE OF AN ENGLISH NOBLEMAN.

Brecclesby Hall, in Lincolnshire, Aug. 1837.

Thus far up the eastern coast again. Here I propose to give you some illustrations of a nobleman's life. I am now staying, by invitation, a day or two, at one of the seats of the Earl of

Yarborough. He is not here himself, and I have chosen this season because my especial object was the observing certain operations on the estate. Some of them I touched upon at "Holkam," and as there are several of your readers who are not enthusiastically interested in agriculture, I shall spare them the rest. Suffice it that his Lordship owns about 70,000 acres of land lying here nearly in one body, besides fragments detached. Much of this which is very valuable, is redeemed from bog and swamp.

This coast, like Holland, opposite, is low, and like that, also, industry has made one of the finest countries in the world. See the result in the revenue. The earl is an extremely liberal landlord. His tenants flourish and get rich, from age to age, almost like their master. I know one of them who is worth his half a million of dollars. Yet they pay him I believe, not less than \$290,000 per annum—the rent varying from \$3 to \$5 the acre, on an average of farms. The whole may be said to be under cultivation. What is called poor land, produces its four quarters and a sack, or 36 bushels of wheat; and what is called good, a quarter or two more.

The secret is partly in the earl's own character. He has a strong practical bias of mind, takes a minute, constant interest in the details of the whole estate, and has done a vast deal towards bringing it to its present condition. It was in the situation of President of an agricultural society that I first met him at the Dinner on the Isle of Wight, and I was then astonished at the knowledge he showed in his successive off hand speeches (which were lectures rather) on hedges, stocks of all sorts, and in fact every description of an English farmer's business which came up for notice.

Doubtless he could take one of his farms and manage it as well as any farmer in Worcester can *his*, and a great deal better than he could manage one here. As it is, not being much here, he reserves only a few thousand acres about the Hall, and a large part of this is kept emparked. One may ride 15 miles in the various winding roads upon this ground, always at the edge of the clean greensward, and shaded by lusty old trees, or, if you choose going ahead you may go thirty miles over his lordship's land in a right line—the farm-houses and cottages which you pass, mostly concealed among foliage, but wide, rich fields in all directions, brim full of the ripening grain, waving, as far as I can see, to the tops of the hedges. What a possession is all this for one man—what an item, I should say, in one man's possessions, an estate which, a few years since, as one of the family told me, when the rents, owing to great improvements, were advanced something above 20 per cent, *added*, by that mere hitch, from 50,000 to 60,000 per annum to his Lordship's pin money! But it is time to come nearer home.

The Mansion, in the library of which I now write, is a large high brick building, stuccoed, with two prong-like porches, at one end, one of which serves for the picture gallery, and the other for the servants' abodes. On the whole it is rather a shabby affair—owing, doubtless, to the Earl's favorite seat being on the Isle of Wight. This does well enough for a sort of farm-house, and to come and pass a hunting week or two in the course of the season. With such an understanding, the whole establishment is kept reduced, es-

pecially as the Earl has lately taken a fit of *retrenchment*, into his head. In fact I am told there are not above 30 *servants* at this time in the house, instead of the good old allowance of 70 or so, when the family, with their guests, used to be here.

What these 30 contrive to do is of course no affair of mine. I only know that the "Usher" is a very civil fellow, who brings my tea, and that his business consists solely in the charge of the beer. He took me into his cellar last evening and showed me to begin with, 16 enormous butts of 410 gallons, and 32 of 210 each, of various ages. The wine is in like proportion; and there is a fat butler, and eke an under-butler, with a white apron on. Beyond this I have at odd walks made the acquaintance of the brewer's premises, whose establishment, though scarcely noticeable in the little village of buildings that surround the Hall, might be converted into a tolerable gentleman's mansion. It is only his place of business, however. His domestic establishment is somewhere else.

The head blacksmith has one of 40 or 50 acres, and a nice snugger in the midst. That is a mile or two distant. The head gardener, close by, has also a very good house. He keeps about a dozen men constantly employed. The steward, or chief agent has a still better place—which looks and very much like \$3000 a year—with walks and grounds of its own. So have some other officers, including the huntsman. This man's ancestors have been on the estate in this business probably over 200 years, and his son is now being *educated* for the same. Besides him two kennel-keepers, and two whippers-in must be always on hand for the good reason that the dogs always are. About 40 couples of them occupy, in various forms, what could be called a very decent suite of rooms, 8 or 10 of them, in a long brick building by themselves.

In the stables about 40 horses are kept at present, including 20 or 30 prime hunters, every one of which has a room rather than a groom. Here, therefore, is work for 15 at least. After all, his Lordship does not hunt, though he once did. The establishment is kept up from habit, good feeling for his people, and for those of his family, and others, who may now and then come here for "sport." Of course, it is the same with the dogs and their five men. Yet the expense is enormous, for it is with dogs and hunters in England, as pictures and a hundred other things, that if a man keeps at all, he must take pains with and pride in. Doubtless the huntsman has the genealogy of each of these puppies infinitely better preserved than his own. I know of one young nobleman's giving 200 guineas for a dog "of a good family," but I dare say it was an extraordinary case, for he was a *very dogged* amateur.

ADDRESS,

Delivered before the Berkshire Agricultural Society, at their Twenty-seventh Anniversary, Oct. 15, 1837.

BY J. BUEL.—(Continued.)

The object of the farmer, in the management of his farming operations, should be, first, to obtain the greatest return for the capital and labor he expends; and secondly, to do this without im-

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 25
CORN, yellow.....	bushel	76	78
White.....	"	75	78
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		3
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's.....	"		
SuperHow. st. from stores	"	9 12	9 25
" wagon price,	"	8 87	
City Mills, super.....	"	8 87	9 12
" extra	"	9 25	9 50
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhd.	hhd.	21 50	22 00
do. in bbls.	bbl.	4 50	4 62
GRASS SEEDS, wholes. red Clover,	bushel.	5 50	6 00
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	6 25	6 50
Slaughtered,.....	"	6 75	6 87
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	95
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 90	2 00
Red, best	"	1 80	1 82
Maryland inferior	"	1 60	1 70
WHISKEY, 1st pf. in bbls.....	gallon.	43	44
" in hhd.....	"	42	42 1/2
" wagon price,.....	"	bbls	39
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13
Shoulders,.... do.....	"	10 1/2	10 1/2
Middlings,.... do.....	"	do	do 1/2
Assorted, country,.....	"	9	9 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	1 75
CHOP RYE,.....	"		1 62
Eggs,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,..... par	Farmers Bank of Virg. 1 1/2
Branch at Baltimore,.... do	Bank of Virginia,.... do
Other Branches,..... do	Branch at Fredericksburg, do
MARYLAND.	Petersburg,..... 1 1/2
Banks in Baltimore,.... par	Norfolk,..... 1 1/2
Hagerstown,.... do	Winchester,..... 1 1/2
Frederick,..... do	Lynchburg,..... 1 1/2
Westminster,..... do	Danville,..... 1 1/2
Farmers' Bank of Mary'd, do	Bank of the Valley,.... 1 1/2
Do. payable at Easton,.... 1	Branch at Romney,.... do
Salisbury,.... 2 per ct. dis.	Do. Charlestown, do
Cumberland,..... 3	Do. Leesburg,.... 1 1/2
Millington,..... do	Wheeling Banks,.... 3 1/2
DISTRICT.	Ohio Banks, generally 6 1/2
Washington,.....	New Jersey Banks gen. 5
Georgetown, } Banks, 1/2 p.c.	New York City,..... 1 1/2
Alexandria,.....	New York State,.... 3 1/2
PENNSYLVANIA.	Massachusetts,..... 3 1/2
Philadelphia,..... 1 1/2	Connecticut,..... 3 1/2
Chambersburg,..... 1	New Hampshire,.... 3 1/2
Gettysburg,..... do	Maine,..... 3 1/2
Pittsburg,..... 3 1/2	Rhode Island,.... 3 1/2
York,..... 1	North Carolina,.... 5
Other Pennsylvania Bks. 4	South Carolina,.... 8 1/2
Delaware [under \$5].... 6	Georgia,..... do
Do. [over \$5]..... 2	New Orleans,..... 12
Michigan Banks,..... 10	
Canadian do..... 10	

TRY THE NEW ESTABLISHMENT.
NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch.

Also, Cline's combined Plough.

J. T. DURDING.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.
R. SINCLAIR, Jr. & Co.,
Light, near Pratt-street, Balt.

FARMERS' REPOSITORY,
PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators
Superior Grain Cradles
Weldron Grain and Grass Seythes
Farwell's Patent Double Back Grass Seythes and Snathes
Hay Forks and Rakes
Manure Forks, Shovels, &c.
English Corn Hoes
Superior American made Casteele Hoes, with handles
Wheat FANS, of various sizes
Mattocks, Picks and Grubbing Hoes
Corn Shellers
Threshing Machines, with or without horse power
F. H. Smith's Patent Lime Spreaders
A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Swingle Trees and Hames
Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Liberal discount made to those who purchase to sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardiness, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy.

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees are packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—23.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 38.

BALTIMORE, MD. JANUARY 16, 1838.

Vol. IV.

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the *N. W. corner of Baltimore and North streets, over the Patriot office*, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: JANUARY 16, 1838.

HORSE FEED.

There is no one who regards the comfort of domestic animals, those noble creatures who contribute so much to the enjoyment of every homestead, whether it be the splendid establishment of the rich, or the more humble domicile of the poor, but must rejoice to learn that the *root culture* is gaining favor with most intelligent farmers. The advantages, indeed, which result from devoting a few acres to such purposes are so striking, and add so much to the profit and economy of every well-conducted farm, that one wonders how intelligent agriculturists could so long have rejected the evidences which have so obviously presented themselves for consideration; and with a view of bringing the facts of the case more immediately to view, we will briefly state them. To begin, then, we will premise, that each working horse will consume 3 gallons of corn per day, or 136 bushels 7 gallons a year; now if we take 30 bushels as the average yield of an acre in corn, which is a large one, it will take 4 acres, 90 perches of ground to raise corn enough to sustain a single horse: on the other hand let us suppose that an acre in carrots will yield 300 bushels, (and this is a small average, for 700 bushels have often been produced on an acre,) and as it has been ascertained that *three pecks* of this root, daily, is sufficient to sustain horses well, at labor, as there are 1200 pecks in 300 bushels, so will one acre sustain a horse 1 year and 35 days, making a saving of 3 acres and 90 perches of land, and nearly the equivalent of that amount of labour in tillage, as all will admit that if the carrots be *judiciously drilled*, the amount of labor to be performed on their culture, is very little greater than what is requisite to secure a good yield of corn—one *thinning* and *three hoeings* being all that is necessary to ensure a good crop. As to the manuring, we will observe, that they do not require more than *ought to be* given to corn, as less than 20 loads should not be devo-

ted to either. The gathering and preservation is, to be sure, more tedious per acre, but when the labor to be bestowed on 4 acres and 90 perches in corn, is compared with that requisite for one acre of carrots, we think the account will stand decidedly in favor of the latter.

It may be said, that corn will keep the year round, and that carrots will not. This is most true—but carrots will keep well from November till May, and when the saving of ground and economy of labor are considered—when the delightful effect which carrots exercise on the general health of the animal, are taken into the account, it must be conceded that much advantage would arise from even partial feeding with them. All observing horse-masters know, that this animal delights in an occasional change of food, and what could be more judicious than to alternate his food from grain to carrots; say twice or thrice a week. The effect of such treatment would be most salutary and conducive to health, as it is well known, that this root exerts a most excellent influence in loosening the skin, giving to the hair a soft and healthful appearance, at the same time that it is cooling to the general system of the horse; often without resort to medicine correcting the torpid condition of his bowels and restoring his appetite. Let him who doubts make the experiment, and we pledge ourself that he will become a convert to our views.

It is estimated that the rise of 1*d.* a pound in the price of cotton in England, will make a difference in favor of our cotton planters, on their last year's crop, of fourteen millions of dollars. This, to us, who glory in every thing which adds to national or individual wealth, is most gratifying news, and, in the sincerity of our heart, we rejoice that this auspicious change in the value of the article, has come so opportunely to the relief of the enterprising and patriotic south. God grant that enhanced value in their great staple, and full crops the present year, may not only entirely relieve them of all their difficulties, but make them "*comfortable*," for surely if there be any class that deserve to be so, it is the tillers of the earth.

Success in farming chiefly depends upon vigilance.

We are indebted to the Hon. Mr. Ellsworth of the Patent Office for a small sample of the wheat, described below; for which we tender him our sincere thanks. Next spring we shall endeavour to give it a fair trial, and shall make a report of its product.

PATENT OFFICE,
January 1, 1838.

Sir—I take pleasure in transmitting a small parcel of superior Siberian wheat, just received from Dr. Goodsell, of Utica, in the State of New York, with an extract from an agricultural work of great merit, the "*Cultivator*," published monthly at Albany.

In a letter received from Dr. Goodsell, he remarked that "one bushel of wheat yielded fifty-five pounds of flour," and "as to quality, we were delighted with it at our table. I do not think the bread quite so purely white as that from winter wheat, a yellow shade was faintly blended with the white; but whatever may have been the loss to the eye (if any) was abundantly repaid to the taste by a richness and sweetness not found in the other; besides it suffers comparatively nothing by age."

The Italian wheat is more common, and has lately been introduced with much success. The objection, the "*rust*," so common to most varieties, may be obviated entirely by soaking the seed just before sowing, in a strong brine, and then rolling the same in quick lime.

Yours, most respectfully,
HENRY L. ELLSWORTH.

SIBERIAN SPRING WHEAT.

UTICA, November 10, 1837.

Mr. Buel,—The lively interest that you have heretofore manifested in relation to the wheat crop, which holds such an important rank in agriculture, induces me to furnish you with some additional remarks, which I have gathered from another year's experience with the Siberian spring wheat.

The first week in May I sowed six bushels of clean seed upon four acres of ground, which had lain to pasture four or five years, and planted with corn upon the furrow the preceding spring. The corn gave a poor return, on account of the unpropitious season—the character of the season past, and the condition of the ground, were both favorable—the growth of the crop corresponded.—I saw it several times during the summer, and was (perhaps too much) gratified with the prospect of the final result. I was at the farm about the middle of July, when the process of vegetation was in its pride, and the kernel in that stage which farmers denominate the milk; a cloud came over the field with heavy thunder, much rain and more wind, which prostrated the whole crop, and that in all directions. From this disaster

(occurring when in fullest leaf, and perhaps heaviest head) it never recovered but partially. We however harvested some of it with the cradle, but much more with sickles, and withal a sad and wasteful gathering necessarily resulted, and from its long prostrate condition, much of it over the whole field was shrunk more or less, according to the degree of prostration. From waste and shrinkage I apprehend we could not have suffered less than ten per cent. loss; besides it was all threshed during the rainy season of the last week in October, and the first week in November, by which we suffered some further loss; and yet, amid all these drawbacks, we obtained between thirty-six and thirty-seven bushels to the acre.—The seed, when sown, was remarkably clean, berry full and perfectly dry, and weighed sixty-eight pounds to the bushel. So much for the productiveness.

By way of experiment as to time of sowing, and the different strengths of soil, I reserved a small quantity of seed, and sowed one part of it the middle of May, on the side of my pea field, on land originally good, but much exhausted by at least ten years' tillage, without a holiday. This was a fair growth, bright, straw, and fair berry, and was, I should judge, equal to twenty-four bushels to the acre.

The remainder of the seed I sowed adjoining my white bean crop, on land not long in tillage, but naturally thin and unproductive. The straw grew well, and I began to think the Siberian wheat would grow on any soil, and might be sowed at any time, but at the harvest I was corrected: the straw, although not rusty, yet totally destitute of lustre, and the heads were poorly filled, and kernels badly shrunk.

The foregoing comparisons are Siberian with Siberian. I will now add a few observations, comparing Siberian with Italian and other kinds of wheat.

The proprietor of the farm adjoining me on the south, took much pains to obtain, from a neighboring county, the Italian spring wheat. At a distance of say fifty rods, south of my field, he sowed about three acres, at or nearly the same time that I sowed my first piece, and like mine, after corn, and in fine condition. His was a far less growth, and some time before harvest it was (as farmers say) struck with a rust, which so far shrunk the kernel that he did not harvest all his field.

The proprietor of the next adjoining farm to the one last mentioned, still south, obtained from me seed for one acre, (which was all I could spare;) he also procured from the last mentioned farmer Italian seed for two acres more. He sowed the two kinds the same day, side and side, in good season, and fine order, and, like his neighbors and mine, after corn. The growth of the Siberian was perceptibly the most luxuriant; the straw bright and lustrous, the berry full, whilst the Italian was very rusty, with some smut, and the kernels badly shrunk. The proprietor judges that the Siberian will give him at least double the number of bushels per acre, and of double value per bushel.

The proprietor of the farm adjoining me on the east, sowed of the same Italian seed, about six acres, like all the preceding pieces, after corn, in fine season and good order, land somewhat ex-

hausted by tillage; it was on the road side. I saw it several times during the summer, the growth middling, but as the harvest approached it lacked lustre, and the berry was not full. I should judge 18 bushels per acre is all that can be expected from the field.

I furnished a Quaker friend in my vicinity with a bushel of seed. He then informed me that he had procured a bushel of very highly recommended Italian seed from an adjoining town, together with another bushel from a still different source, the name of which he could not recollect, in order to test their comparative merits. Last week he called on me to let me know (as far as he could before threshing) the results. He said he sowed the three kinds the same day, on the same soil, with the same tillage. The growth of straw not materially different the forepart of the summer, although evidently in favor of the Siberian as the harvest approached. The Siberian came in with a bright and lustrous straw, with full heads and plump kernel, but a few days later than the other kinds. The Italian almost ruined with smut. The other kind, straw very rusty, kernel badly shrunk, with some smut. He says he thinks he shall thresh nearly or quite forty bushels from the one bushel of Siberian seed.

One comparison more, and "although last perhaps not least." In the same field with my Siberian, I summer fallowed seven acres, and sowed the previous fall with winter wheat. It suffered severely by the winter, but after a long time there began to show some surviving plants, which spread and grew luxuriantly, and finally gave a return, as we judge, (not having threshed only as we have wanted for use,) twenty bushels per acre. This part of the field was protected from the storm, which prostrated the other, by a wood on the westerly side. About ten days before harvest it was overtaken by a rust, remarkably dark, but came too late to affect the berry. It was surprising to see, side and side, for they were not even separated by a fence, the straw of the one kind as white as silver, and the other as brown as that of buckwheat. Another fact which claimed my attention, was that of a strange bug, of the size and shape of a bed-bug, having wings encased, but showed no disposition to use. They were astonishingly numerous, covering literally the straw near the heads of wheat, and thick upon the heads themselves, but not a bug on the Siberian to be seen. Whether these are the harbingers of the grain worm or not I do not know, but whatever be his errand he has no message for the Siberian.

THOMAS GOODSSELL.

REMARKS.—The above communication from our friend, Dr. Goodsell, goes to assert a very important fact, viz. that the straw of the Siberian spring wheat escapes the rust, where the Italian and other varieties are subject to it. This fact, if confirmed by future experiments, is of invaluable importance to the farmer. We have had but one opportunity of comparing samples of the Siberian and Italian wheat, of the crop of the last season, and in this case, we confess, the superiority seems rather in favor of the former. Whether this arose from the effect of rust on the Italian, and from the Siberian being exempt from this malady, or from difference in soil, we are not prepa-

red to say. We should like to satisfy ourselves as to the relative merits of the two kinds of wheat; and if Dr. G. will send us a bushel of Siberian seed, we will make the experiment fairly, and publish the honest result.—*Cond. Cult.*

[From the Horticultural Register.]

ON THE CULTIVATION OF ASPARAGUS

BY SAMUEL POND, OF CAMBRIDGEPORT.

[We recommend to our readers the following communication of Mr. Pond, which we are happy to give a place in the Register, as we think his remarks are well calculated to benefit those who are desirous of forming new Asparagus beds, or renewing old ones. While some horticulturists give their attention to one production and make improvement in that particular branch of culture, the interest or fancy of another person leads him to something of a different description. Mr. Pond has given his attention in a particular manner to the culture of Asparagus, and from the success which has attended his efforts, if we may judge from the productions he has presented to the public from time to time, and which we ourselves have witnessed, should infer that he has been eminently successful in the cultivation of this delicious vegetable.—Ed.]

The cultivation of asparagus, although so general, is, by no means, as well understood as it should be. Like many other vegetables, which have for years been cultivated, and which almost every gardener thinks he already raises to perfection and needs no further information in relation to their growth, it can still be wonderfully improved in its mode of cultivation. The immense quantity which is produced in this vicinity, for the market, and its superiority to that of former years, is a convincing proof, that its cultivation is now much better understood than heretofore, and it is to be hoped that it will still continue to be grown of larger size and more excellent quality. In private gardens, in particular, some fine specimens have been produced within the last two or three years, and, with little more care and expense, the market gardener may as easily supply his customers with this estimable vegetable in equal perfection. There are several kinds of asparagus some of which have been lately introduced and have not yet become very well known. That which I have grown, and which I have proved to be of most excellent quality as well as of monstrous size is called the giant asparagus. It is as yet but little known, and consequently, not very extensively cultivated.—But so superior is it to the old kinds generally grown, and of which hundreds of plantations now exist, that it must take their place soon.—Some cultivators do not like to destroy fruitful beds because the kind is rather inferior; yet I have no doubt but they would be more amply repaid in the end, if they were to make new plantations, and as soon as they came into bearing, entirely destroy the old ones. Its large size and fine appearance, together with its tenderness and flavor, recommend it to the notice of every market gardener, who is desirous of any emulation for his productions, and to every gentleman and amateur, who is ambitious of supplying his table with the most excellent kind. There has been

considerable written upon the culture of asparagus, and there are various opinions respecting the best method of cultivation. But leaving the reader to choose which system he pleases, I proceed to detail the method I have adopted and which I have found to be completely successful. It is difficult to persuade those who have for years continued to grow any kind of plants to tolerable perfection to adopt new modes with the hopes of improving upon the long-trodden path. In the month of April or May, select a spot of ground sufficiently large to plant the number of roots intended. If the plantation is to be large, and intended for supplying the market, the ground should be ploughed to a good depth; if for a common kitchen garden it should be trenched to the depth of 14 inches. Make the surface of the bed level, after this operation is performed, then proceed to mark places to dig the trenches for the roots; they should be two and a half feet apart; stretch a line the whole length of the bed: draw the next two and a half from this, and so on to the whole width. Then proceed to throw out the soil 12 inches wide and 12 inches deep, laying it up in ridges between each trench; after this is done, throw in three or four inches of manure, level the same, and add about one inch of soil on the surface scraped from the sides of the trenches: level this also, and all is ready for planting. There are different opinions respecting the age at which roots should be planted; some gardeners prefer one year old roots, some two, and some even three, when it is desired to have beds ready for cutting as soon as possible set out; but I am doubtful whether much if any thing is gained by this; for my own planting, I always prefer those of two years of age, and rather than set out older ones, I would have those of only one year; select such only as have good fibres and a fine bold crown. In setting out, place them six inches apart, and lay out the fibres in regular order, and not tumble them together, as is too often done to the great injury of the plants. Much of their future success I attribute to the care given in setting out. When all are planted, cover them with about an inch of soil, and the work is all finished. —The plants throughout the summer must be kept clear of weeds and occasionally hoed, and by these operations and the summer rains, the trenches will by October be filled up as level as the bed was before setting out the roots. The practice adopted by most, if not all growers of this vegetable, is to set out the plants in deep trenches, and cover them at once 6 or 8, and in some instances 12 inches deep. Nothing can be more injurious than this; for a great part of the roots seldom make shoots strong enough to force their way through this depth of soil, and consequently perish, or, if they come up they are weak and small and never afterwards attain to any size. It is an old system, and, like that of growing celerity, now generally exploded, it should be likewise. —In the method I have adopted, the roots have but a small covering of earth when planted, and the shoots come forward very fast; as they increase in vigor, little more is added, till, by the assistance of the heavy summer rains which wash the soil from the ridges into trenches, they are completely covered. Scarcely a root has ever failed to grow. Upon the approach of cold weather and after the tops have been killed by frost,

they should be cut down even with the ground and carried off: the bed should then be covered with two or three inches of horse manure, which should remain on until spring, when it must be forked into the surface of the bed.

In doing this be careful not to injure the crowns of the roots. Just before the shoots make their appearance, give the bed a good raking which will destroy the weeds that are starting to grow. It is a bad practice to plant asparagus beds with radishes, lettuces, peppergrass, &c., as they exhaust the goodness of the soil. The first year after planting, a few of the strongest shoots may be cut, but very sparingly, as the roots will be all the better afterwards. Continue to pursue the same system of culture every year, and the roots will rapidly increase in vigor. The soil that asparagus seems most to delight in, is a light and rich one, neither too wet nor too dry; when the soil is shallow the trenches must not be dug so deep as above recommended. The manure I made use of was fresh from the hog-pen, and somewhat strawy; but I presume any good manure would answer equally as well. The asparagus is a marine plant, and a light dressing of marsh mud in the fall or spring seems to increase the growth of the plants. I would recommend it when it can be easily obtained. Beds prepared in this manner and yearly attended to will last for a great length of time, and the produce will be of superior quality. When I planted out my bed I preferred plants of one year's growth to older ones; they can be set out with more care, for this kind will, when spread on the bottom of the trench, require the trench to be from 10 to 12 inches wide on the bottom, so as to spread your roots each way; I have seen beds set of three year old plants from which enough could not be obtained to pay the setting out. When the roots are so large, it is impossible to set them out; even if they were so good, the old roots decay, and fibres start anew. In the following spring after setting my bed of plants of one year old, I cut grass of a good size; since then I have frequently had six spears of the common length, which would weigh one pound. I have occasionally exhibited specimens from my bed at the Massachusetts Horticultural Society's room.

SAML. POND.

Cambridgeport, Dec. 25th, 1837.

[From the Southern Agriculturist.]

OBSERVATIONS

On the employment of Salt in agriculture and horticulture, with directions for its application, founded on practice. By CUTHBERT WILLIAM JOHNSON. 5th edition. London, 1827.

We have received many communications requesting information upon the subject of Salt as a manure. In some remarks already made in our journal, we have alluded to the matter; but as we were then only experimenting, we could not bring many facts to substantiate our positions. During the last season, however, we made several trials with salt, and the result has been, that we are perfectly satisfied of its efficacy as a *stimulating* manure. As a *nutritive* manure, we must here repeat, what we advanced upon a former occasion,—it will not succeed. It only acts upon the plant as a stimulant; enabling it to imbibe from the soil those juices which otherwise it would fail

to do. Some soils may possess much vegetable matter, which would remain inert, and the plant would fail to receive it as nutriment, without some ingredient to give it activity and efficacy. In most soils, lime does this in an admirable degree,—with us, we have found that salt-mud, salt-water, and common salt, will produce such an effect; and we trust before we finish this article, to satisfy the most incredulous, that there are facts enough upon record for any man to be satisfied with the position we have assumed.

From the excellent work, whose title heads this article, we make the following extracts:

"That salt was very early applied as a manure in the East, we have abundant testimony. 'Salt,' said our Saviour, in one of his addresses to his disciples, 'is good; but if the salt have lost its savor, wherewith shall it be seasoned, it is *neither fit for the land nor yet for the dunghill*, but men cast it out.'—(St. Luke, chap. 14, verse 34.)

'Cato says, "sprinkle your best straw with salt, then serve it for hay!"

'Lord Bacon, who died in 1626, recommends its use for the garden.

'Sir Hugh Platt, in 1658, bears testimony to its value for grass lands.

'Frederic Hoffman, in 1742, and Dr. Brownrigg, in 1748, celebrated its importance as a condiment for cattle.

'The farmers in the neighborhood of Padstow Harbor, annually employ nearly 54,000 single-horse cart loads of sea sand, and they are so convinced of the superiority of this salted sand, that they prefer, says Dr. Paris, "sending four or five miles to the shore to obtain this calcareous sand, which has salt in it; although, at much less expense, they might procure drifted sand, which does not contain salt, at their own doors."—(Johnson's Essay on Salt, page 30, second edition.)

'Wheat—Salt, it should be remembered, *rarely causes the wheat plant to grow larger or taller*, but it fills up the earth better, and brings the weaker plants forward. We have it on the authority of Mr. Sinclair, that "salt appears to lessen the produce of straw and increase the weight of grain." I have never been able in my experiments, or any I have witnessed, to see any increased quantity of straw, even in cases where there was an increased produce by means of salt, of six bushels of wheat per acre.

'I cannot enforce this too much upon the attention of the agriculturist. Let not the farmer be deceived by appearances: let him have the salted and unsalted portions, at harvest time, carefully separated and examined by weight, if the plots are small, or measuring will answer if extensive. A few square rods, or even yards of each, will be sufficient; and I have no hesitation in saying, that he will find the result highly in favor of salt. But if, on the contrary, after having carefully supplied salt to *half* of the field, he judges at harvest time merely by his eye, in such an unfortunate case, let me request of him, for his own credit sake, not to mention *his experiments* upon salt manure—how carefully he tried it; and how complete was its failure: let him be assured that such modes of investigation, though very common, are worse than useless to the agriculturist—are marks of obstinacy and presumption, to be excused only on the plea of ignorance.

'Let the salt be applied some time before sow-

ing the seed, not less than ten and not more than twenty bushels per acre.

'In my own experiments upon a light gravelly soil, at Great Totham, in Essex, the use of twenty-bushels of salt per acre, (in 1819) produced an increase of $5\frac{1}{2}$ bushels per acre.

'The following statement of the result of some trials in 1820, will show how important may be the result to the country at large, by its judicious application. I regret that incessant employment of a very different nature has hitherto prevented my continuing these experiments.

Produce per acre.
bbls. lbs.

No. 1. Soil without any manure, for four years,	13 26
2. Soil manured with stable dung, to the previous crop, (potatoes),	26 52
3. Soil with five bushels of salt per acre, and no other manure for four years,	26 12

The soil light and gravelly.

'The testimony of a plain Essex farmer may have some weight in corroboration of my own, even with the most suspicious. "The soil," says Mr. James Challis, of Penfield, "that I described to you to be of rather a loose hollow description, had a dressing of salt put on in November, after the wheat was sown, about 14 or 15 bushels per acre; it produced at the rate of six bushels per acre more than that which was not dressed, and it may be stated to be £1 per load of 40 bushels better in quality."

'Another Essex farmer, the late Mr. Baynes, of Heybridge, had his doubts removed by the result of the following experiment—the soil "a sandy clay."

'Produce in bushels per acre:

Soil dressed with 15 loads of stable dung per acre,	17 $\frac{1}{2}$
Soil dressed with 14 bushels of salt per acre, immediately after the seed was sown,	86 $\frac{1}{2}$

'It is a custom in most countries of Europe, to apply salt and water as a steep to prevent the ravages of the disease in wheat, called smut; the value of this is known to almost every farmer. Recent experiments have suggested that it may even be of use, when employed in larger quantities, as a preventive of mildew—the most dreadful of the numerous diseases to which the cultivated grasses are exposed. The experiments of the late Rev. E. Cartwright, strongly evidence, that when salt and water is sprinkled with a brush upon the deceased plants, it is actually a complete cure, even in apparently the most desperate cases. (See Essay on Salt, page 49.)

'The proportion, one pound to a gallon of water, laid on with a plasterer's brush, the operator making his casts as when sowing corn: it is instant death to the fungus." The time and expense is trifling.

'It appeared in the course of some inquiries made by the Board of Agriculture, that a Cornish farmer, Mr. Sickler, and also the Rev. R. Hoblyn, were accustomed to employ refuse salt as a manure, and that their crops were never infested with the rust or blight.

'Barley and Oats—Apply from ten to sixteen bushels per acre, just before you sow the seed.

'Mr. Legrand, a Lancashire farmer, states, "in a sandy soil I can assert sixteen bushels to be a

proper quantity for a statute acre; it gradually advanced in its beneficial effects to sixteen bushels, and as gradually diminished to forty bushels where vegetation was stopped."

'A Suffolk farmer, Mr. Ransom, of Sproughton, also says, when speaking of his experiments on a light sondy soil, "the Barley thus dressed, presented no difference of appearance to the rest of the field, until within a fortnight of harvest; the salted crop was then brighter and about one week forwarder than the rest of the field." The following are the results when carefully cut and measured—

'Produce in bushels per acre:

Soil without any manure,	30
Soil dressed with 16 bushels of salt per acre, in March,	51

'Turnips, Mangel Wurtzel, &c.—I select from my latest communications the following from Kilmington, in Devonshire. In a letter dated August 26, 1826, Sir Thomas Acland, Bart., favored me with the following statement from his bailiff:—"The first experiments I made of salt for manure, was on seven acres of land for mangel wurtzel. I first heaped over the field with earth, forty heaps to an acre, as is usually done for lime: I then put in each heap thirty-three pounds of salt, and mixt it well with the earth, and let it lie a fortnight before I spread it over the land, after that I ploughed the land three times before I sowed the seed, and I had there 32 pounds each. Since that time I prepared a field of 5 acres in the same way for turnips, one third part of the field with lime, one-third with salt, and the other part with hearth ashes. When the seed came up first, the turnip appeared most promising where the hearth ashes were; but after the first month, the turnips did not grow so fast as where the salt or lime was; after that time, the turnips, where the ground was manured with salt, grew faster, and the green looked stronger and darker, and at the end of the season was the best crop."

'The next year I put the field to barley; and where the salt was put, it was the strongest and best crop. After that time it was a great deal heavier to work; therefore, I consider it a good manure for light sandy soils, but not calculated for clay or heavy lands.

'Mr. Hare, of Beaconsfield, in Buckinghamshire, uses salt regularly. In 1822, on one acre of a large field—the soil very gravelly—he applied about 2 cwt. of salt, without any other manure; the rest of the field was manured as usual. The turnips produced on the salted acre were just as good as on any other part of the field. In the following year, on another field of the same quality, he manured the whole field with farm-yard manure, adding to one acre of the field $2\frac{1}{2}$ cwt. of powdered rock salt. On this salted and manured acre, he had more and finer turnips than was produced on any other field of equal extent in the whole parish. He approves of it also very decidedly for barley.

'Grass Lands—Apply ten or fifteen bushels per acre in the autumn.

'I rejoice to find that in Devonshire salt has found, in Mr. Collyns, of Kenton, an able and zealous advocate. From a letter dated October 17th, 1826, with which I was favored by that gentleman, I make the following copious extract:

'"One of my neighbors writes me, in using

salt as a manure on grass land: 'I have found the salted portions not to be affected by severe frosty nights, when every blade of grass on the unsalted portions has been in a frozen state.

'"I observe, too, that it is destructive to every kind of grub and worm; and I am convinced, where it has been used with judgment, that it has not failed." Another intelligent neighbor, continues Mr. Collyns, whose farm is almost entirely light black sand, writes—"I have found salt answer my most sanguine expectations for barley, oats, potatoes, and turnips, both as to the increased quantity and improved quality of the crops, of which I can now give ocular demonstration to any one you will send: my barley and oats, which used to yield me only 15 to 20 bushels per acre, now yield from 40 to 45. My wheat is certainly much improved in quality, but I expected more in quantity. I have had 35 bushels of wheat from an acre dressed with ten bushels of salt; and from the same field last year, after the same quantity of salt, 140 bags of potatoes per acre. This year again, dressed with ten bushels of salt, I have not more than 20 bushels of wheat per acre, but the quality very superior indeed, and the root of clover in it is very fine and luxuriant. In every field I have salted, I find the grass very much superior to any produced before the use of salt."

'"I have since," adds Mr. Collyns, "gone over his farm, and am astonished at the verdant pasturage, in what used to be coarse and rushy meadows. In this arable land he never got more than ten bushels of wheat per acre, until he used salt; so that this is also a decided improvement."

'I will give but another testimony in favor of its use, and that one of the latest I have received from an old Suffolk agriculturist, Mr. Brooke, of Capel, near Ipswich:

'In the month of April, 1821, six bushels of salt manure were applied to half an acre of red clover—the soil good turnip land, not sharp; extent of the field ten acres. The salted clover at first looked very yellow, and apparently injured, but it soon began to recover; and when mown, the increased produce was, at the very least, 10 cwt. per acre; and the aftermath proportionately good, the cattle eating it down closer, and in preference to every other part of the field.

'Potatoes—Apply from ten to twenty bushels of salt to the surface as soon as the potatoes are planted, or ten bushels in the previous autumn, and ten after inserting the sets.

'My experiment with salt to potatoes were upon a light gravelly soil. The result was as follows:

Produce in bushels per acre:

1. Soil without any manure,	120
2. Soil manured with 20 bushels of salt the previous September,	192
3. Soil manured with stable dung at the time of planting,	219
4. Soil manured with stable-dung and 20 bushels of salt,	234
5. Soil manured with 40 bushels of salt alone, 20 in September, and 20 in the Spring, after the sets were planted,	192 $\frac{1}{2}$
6. Soil manured with 40 bushels of salt as in the last experiment, and also with stable-dung,	244

'These experiments are entirely confirmed by those of the Rev. E. Cartwright, of Toubridge—

From a copious table which the farmer will find at page 82 of my Essay on Salt, I extract the following statement:

Produce in bushels per acre:

1. Soil without any manure,	157
2. Soil manured with 9 bushels of salt per acre,	198
3. Soil manured with 8 bushels of salt and 30 bushels of soot per acre,	240
4. Soil manured with 30 bushels of soot per acre,	182

"Of ten different manures," concludes Mr. Cartwright, "most of which are of known and acknowledged efficacy, salt, with one exception, is superior to them all."

Hay—Put about half a bushel of salt to every load of hay, spread it by hand or through a sieve. Mr. Woods, of Ingatestone, in Essex, has employed it for thirty years; his plain unvarnished statement need not be supported by any other.

"I use about a quarter of a peck at each laying, thinly spread, which I find is about four bushels to a stack of 20 loads. I am fully satisfied that double the quantity would be much better.

"In a particular wet season, a few years since, I used twelve bushels to a stack of forty loads, the whole of which was consumed by my own horses, and I never had them in a better condition. I am so fully convinced of the benefit of salt to hay, that, while it is allowed duty free, I shall use it in all seasons. (For other testimonials to the same effect, see Essay on Salt, p. 100.)

"The avidity with which animals consume salted hay, is not so generally known as it ought; I will give, therefore, a curious fact, related to me a short time since by Mr. Lawe, of Reading.

"Mr. Green, of Wargrave, in Berkshire, had, in the season of 1824, a parcel of sour rushy hay, from a meadow on the banks of the Thames, which both he and his men despaired of rendering of the least value; it was, therefore, stacked by itself, and well salted; the quantity supplied was large, but Mr. Lawe did not know the exact proportion.

"When the period arrived that his sheep wanted a supply of hay, he directed his shepherd to use the salted inferior hay first, and to his surprise the sheep consumed it with the greatest avidity. The stack being finished, the shepherd was directed to supply them now with the best hay he could find of other stacks of fine meadow hay.

"He came, however, the next morning to his master, and made the following remark: "We, sir, must have made a great mistake, and forgotten which stack we salted, for our sheep will not eat the hay which we think the best."

Live Stock—The importance of salt to animals is so generally admitted, that I shall not here dwell at great length upon it. When animals are in a wild state, it is observed, that at certain periods of the year they seek the salt water, or salt springs inland, with great avidity; and every farmer observes, that his cattle, horses, &c. are remarkably fond of licking the salt earth of the farm yard, stables, &c.; and in Spain they give their sheep salt with great regularity, 128 lbs. in five months to one thousand sheep: as such, I fearlessly assert, that the importance of salt for cattle is incontrovertibly established, however imperfectly it may be practised. I subjoin the statement of

Mr. Curwen, M. P. for Cumberland. He has employed salt to his live stock daily for years:

For horses he gives	6 oz. per day
Milch Cows	4 do
Feeding Oxen	6 do
Yearlings	3 do
Calves	1 do
Sheep	2 to 4 per week,

If on dry pastures; but if they are feeding on turnips or oles, then they should have it without stint.

"Some give it to live stock on a slate or stone—some lay lumps of it in the cribs or mangers. There is every reason to believe that if it was regularly given to sheep, they would be rarely affected with the rot.

"Mr. Butcher, now of Brook Hall, in Essex, for years employed salt for his cattle and sheep, on his farm near Burnham, in Norfolk. One of his fields, was so very unfavorable for sheep, that, before he used salt, he has lost ten and twelve sheep in a night, when feeding on the turnips; but after he adopted salt, he never lost one. He used to let the sheep have the salt without stint; and he remarked, that the sheep always consumed four times the salt on this particular field, than when feeding on any other on the farm.

"Mr. Butcher one year let this field of turnips to a neighbor, who did not use salt; and consequently, after losing ten sheep the first night, gave up the field in despair.

"Sir Jacob Astley, of Melton Constable, in Norfolk, give about a table-spoonful of salt per week to each of his fox-hounds—it keeps away distempers, and preserves them in the best health and vigor. It is administered wrapped up in a paper as a bolus.

(To be Continued.)

ECONOMY OF FODDER.

BY REV. H. COLMAN.

Let us compare the value of hay with other crops for the feeding of stock. An acre of hay yields one ton and a half of vegetable food; an acre of carrots or Swedish turnips will yield from ten to twenty tons, say fifteen tons, which is by no means an exaggerated estimate. Crops at the rate of twenty-five tons of carrots and twenty-two of Swedish turnips to the acre, have been raised among us, and much larger crops than these are upon record.

By an experiment, it has been ascertained that three working horses fifteen and a half hands high consumed at the rate of two hundred and twenty-four pounds of hay per week, or five tons one thousand five hundred and forty-eight pounds of hay per year, besides twelve gallons of oats each per week, or seventy-eight bushels by the year. An unworked horse consumed at the rate of four and one quarter tons of hay by the year. The produce therefore of nearly six acres of land in this mode of feeding, is necessary to support a working horse by the year; but half an acre of carrots at 600 bushels to the acre, with the addition of chopped straw, will, while the season for their use lasts, do it as well if not better. These things do not admit of doubt; they have been subjects of accurate trial.

It is believed, that the value of a bushel of Indian corn in straw and meal, will keep a healthy

horse in good condition for work a week. An acre of Indian corn, which yields sixty bushels, will be ample for the support of a horse through the year. Now it is for the farmer to consider, whether it be better to maintain his horse upon the produce of half an acre of carrots, which can be cultivated at an expense not greatly exceeding the expense of half an acre of potatoes; or upon half an acre of ruta бага, which can be raised as a second crop at less expense than potatoes; or upon the grain produce of an acre of Indian corn; or, on the other hand, upon the produce of six acres in hay and grain, for six acres will hardly do more than to yield nearly six tons of hay and seventy or eighty bushels of oats. The same economy might be as successfully introduced into the feeding of our neat cattle. I have known a yoke of oxen engaged in the labor of a farm, to be kept three months in winter, in good working condition, upon one bushel of Indian meal, and about twenty-five cents worth of straw per week; and my own team has never been in better condition both for appearance and labor, than when fed wholly upon a liberal supply of ruta бага and the coarsest fodder. But it has been ascertained by accurate measurement, that an unworked ox put up on good old hay, consumed at the rate of 33 lbs. per day, or 231 lbs. per week, which is upwards of six tons per year of 2000 lbs. to the ton. There must then be a great saving between feeding in the way referred to, or upon English hay; and English hay alone, in any quantity, without grain or vegetables, is not sufficient for any hard working animal.

[From the New England Farmer.]

PRESERVATION POWERS OF COLD ON ANIMAL FOOD. The most obvious method of preserving animal food, is the application of a degree of cold sufficient to solidify the juices, and thus to suspend the operation of the principle of putrefaction. Meat that is perfectly frozen, may be kept sweet any length of time. A striking instance of which is the case of the mammoth, found in Siberia, which probably had been entombed in the ice for an almost indefinite period of time. The flesh was sweet, and was greedily devoured by the hunter's dogs. The frozen markets of Russia are well known. In the country about Hudson's Bay, the flesh of all animals used as food there, whether quadrupeds, fish or fowl, are preserved perfectly by the cold; and the two latter, even without being cleaned out.

It is, however, doubtful whether provisions thus preserved, do not suffer. It is a common opinion amongst butchers, that meat once thoroughly frozen, never recovers its fine flavor. For instance, fish preserved by being frozen, if thawed before a fire, becomes hard, and is spoiled; but that if thawed in cold water, it will become tender, and fit for the table. In Canada, where animal food of all kinds is preserved for many months, by being frozen, and packed in snow, they carefully avoid softening it in warm water, previously to its being cooked, as it is known that it would very speedily putrify; cold water is therefore used. Something like this takes place in the living human body. When a limb is fröst-bitten, if immersed in warm water, or brought near the fire, it will speedily run into gangrene.—Hence it is the practice to rub it with snow, and to elevate

the temperature with the greatest possible caution.

Experiments on the preservative power of cold on provisions, occasioned the death of Lord Bacon.—While at Highgate, he took the opportunity to stuff a hen with snow, to try the power of its antiseptic agency. Immediately after eating it, he was taken ill, and in a few days the world was deprived of this great man.

Reduction of temperature ever so little below that of the atmosphere, is of use during warm weather, and hence meat is always kept in the most shaded and coolest places. It is a practice with some persons to cover meat in warm weather, with a cloth steeped in vinegar; the acid vapor keeps off flies, and the moisture occasions cold by evaporation. A wet cloth will be always found colder than the surrounding atmosphere, as it will be evinced by rolling up a thermometer in it. The degree of cold will be in proportion to the power of evaporation, the difference of temperature often exceeding 10 deg. Fah., which is of considerable importance in the preservation of meat in a hot sultry day.

SILK CULTURE IN A "NUT SHELL." An Italian gentleman in New York, who has been familiar with all the details of the Silk business in Italy, has published a little pamphlet, giving facts and opinions on this subject. The following paragraph is designed to show how the business may profitably be connected with agriculture without interfering with the regular industry of the farmer. It is precisely the way it is proposed to introduce it here and render it lucrative in this country—he gives a practical illustration:

"I will take the case of a farmer who owns merely a small house sufficient for the residence of his family, and about ten acres of land. Without the least sacrifice or diminution of the productiveness, if he would merely surround it with a hedge row of Mulberries, planted with judgment and according to the best methods, it is certain that it would cost him to do so only a few dollars of expenditure for the purchase of the trees, but the beauty and value of his farm would be immensely improved. At the end of the third year, the trees will have arrived at such a growth as to furnish leaves in considerable abundance.

But suppose that they will produce leaves enough only to feed the silk worms from two ounces of eggs, yet such a number if carefully nurtured, would yield at a moderate estimate, one hundred and seventy-five pounds of cocoons, which at twenty cents a pound, would give a profit of \$63 6-100. The care of so small a number of worms would not be a great burthen to the farmer. One woman with the assistance of a boy, for the labor of gathering the leaves during five weeks would suffice. Nor would it be requisite to enlarge the house for the accommodation of the worms. The kitchen or sleeping room, if well ventilated, would be sufficient to contain the worms from two ounces of eggs without inconvenience. The fixtures necessary for the accommodation of the worms would be so trifling that their cost can scarcely be calculated, especially as this expense would only be incurred in the first year. From this calculation, made on an experiment so limited, it is easy to estimate how profitably

it would be for farmers and proprietors of extensive grounds to cultivate the silk worm, where they can have large plantations of Mulberry."

[Hart. Dem.]

RECLAIMING BOGS AND SWAMPS.

There is no one thing at present within the scope of our acquaintance that will so materially change the face of the State, and add so much to the actual value of its territory, and even its capital, as the reclaiming of Bogs and that kind of land known by the name of Brook Intervale. When the deposit of vegetable matter which has been accumulating for ages, is deep, and it is not very wet, or in such a condition that the water can be commanded or controlled at pleasure, there is no better grass lands among us.

This kind of land is abundant in Maine, but has hitherto been considered of not much value, and suffered to lie neglected—grown up to bushes, and covered with mosses of no value at all. Where of such texture and consistency as to allow of cultivation, the best of grasses may be raised upon them, and the profit can be easily calculated by those living in their vicinity, and who know the price of labor there and the value of hay. When they are of a more moist nature and will not grow the better or more common grasses, they will produce the coarser and less nutritious aquatic species in abundance, which are very good for sheep and young cattle during the colder parts of the winter. This kind of hay may be considered on an average to the farmer who has a large stock equal in value to half that which is given for the common kind, and the yield per acre is often more. Let us cypher a little about it.

If it produce one ton per acre, and that ton costs you two dollars to secure it, and brings you four dollars, you have a net income of two dollars upon the acre. Now two dollars, you know very well, is the interest of 33 dollars and 33 1-3 cents, at 6 per cent. It is not unfair, then, to consider the acre fairly worth that sum. If it should produce a ton and a half of hay, and that sold for the above price the amount will be six dollars, or three dollars net income. Three dollars of course is the interest of fifty dollars, and is it wrong to value the acre actually worth that sum?

Let any man therefore sit down and make a calculation of the number of acres which there may be of this kind of soil in his town, now lying idle and comparatively speaking worth nothing; and then see what would be the gain to the community, if they were cleared and produced according to the above estimate. And if all these waste acres throughout the part of the State at present settled, were reclaimed and in operation, what an increase of valuable and taxable property would result.—*Maine Farmer.*

MILKING COWS.

MR. HOLMES:—I have a very good cow which I allowed to go without being milked, two months previous to the time of her last calving but one; she had not been kept very high, and had nothing but hay given her.

This winter I gave her roots and plenty of hay, and she gave milk nobly. I allowed her to be milked until within three weeks of her calving, twice a day, when she gave three quarts per day,

for two or three days, and no more until she calved.—Being highly fed and fine flesh, I expected a large parcel of milk from her. In this I have been disappointed. She appeared to do well, when she calved; has been healthy and hearty since;—she has had half a bushel of roots per day, with what hay she needs, and yet she gives but a small quantity of milk.

I now believe it owing to her being milked so near the time of her calving; as she has been kept better this season than common. At the time, I supposed it would have no deleterious effect. If I am right, let this be a caution to all who have cows, not to milk them too near the time of calving—if I am wrong, I desire to be set right, by some of your able correspondents. Please, Mr. Editor, give us your ideas on so practical an affair.

I now believe that as milk is blood, before it enters the udder or bag, it should be left in the system to accumulate to benefit their young, and enlarge the vessels, &c.; and that he who milks his cow too near the time of calving, "withholds more than is meet," which tends to poverty, as Solomon says.

Let it not be inferred that I think a cow which goes dry half the year, or for a long time, of equal value with one that we can milk till the proper time to cease milking, which I think is seven or eight weeks before they are to calve—calculating 40 weeks for them to go with their young, which is the usual time.

Wayne, December, 1837.

N. B. Will some one answer the following query, through the Farmer?—If a cow is milked up to the time of her calving, does that fact of necessity increase the quantity of her milk, or diminish it?—*ib.*

[From the Zanesville Gazette.]

AGRICULTURAL EXPERIMENTS.

Messrs. Parke & Bennett.—If you think the following experiment deserving the attention of farmers, it is at your service.

Last spring, having a piece of ground which had been in grass for several years, I had broken up as deep as possible with a strong ox team and plough adapted to the purpose. I then chequered it about 3½ by three feet and covered the crosses with long manure plentifully, and on this dropped the potatoes, taking for each hill a whole potato and cutting it in two. The potatoes were then covered about an inch and a half with earth, and the cultivator was afterwards run three times through the ground, but no fresh earth reached the growing crop. From this strip of ground 12 rods long by 21 feet in width, measuring from the adjoining corn across to the fence, I measured 100 bushels of potatoes, and a quantity, from 5 to 10, was put away without measurement. The quantity of land being about one-tenth of an acre, the yield was more than at the rate of 1000 bushels per acre, which at 25 cents, the price potatoes have brought this fall in Zanesville, would be \$250.

The kind of potatoes used was what are by some called the "long reds." It is proper I should say that this experiment was made in accordance with hints derived from the Genesee Farmer; and I have also this fall tested to my

satisfaction the practicability of fattening hogs on apples.

About the first of September I put up six hogs, one of which was an old sow which had just suckled a litter of pigs, and was in very thin condition. These I fed for three or four days on sweet apples, but at the end of that time I found they would not eat; I then threw them a quantity of very sour apples which they devoured rapidly; I afterwards fed them freely on a mixture of sweet and sour apples, giving them for drink the ordinary slop of the kitchen, and when that was not sufficient I gave them spring water; I never saw hogs thrive more rapidly. The sow I fed six weeks, the others only four, when I sold them to one of the Zanesville butchers, for market use.—They were then excellent pork.

It is my opinion that two acres of orchard will, taking the seasons on average, make as much pork as six or eight acres cultivated in corn.

A MUSKINGUM FARMER.

SILK CULTURE IN MAINE.

We the make following extract from the report of the committee on manufactures of the Kennebec County Agricultural Society, at their late cattle show and fair. It shows that the business is progressing in Maine, and that the confidence of intelligent men in its practicability is undiminished. "In speaking of the sewing silk, we can hardly find language to express what we feel. We think either of three lots would compare with most of our imported silks. We could wish that a larger number of specimens had been before us, yet while we thus complain, it is matter of rejoicing that these few were so well executed. We think we should give the premium to No. 43, (Leavitt Lathrop.)

One pair of Silk Hose, No. 43, (Sarah Jackson) was before us. We would that they could be exhibited throughout our State. We wish that all the fair daughters of Maine would imitate the example of this one of Kennebec, in the manufacture of these necessary articles. We think this one's petition should be heard without her often coming to weary.

The committee on beet sugar, &c., thus remark in relation to that article: "Of sugar from the beet, no specimens were exhibited; but your committee feel confident that the time is not far distant, when we may have that rich article of luxury manufactured in our own State, and perhaps in our own families. We recommend that the premium be left open till the end of the year."

HORSE RADISH—This vegetable, so much used as an accompaniment to roast beef, is comparatively but seldom seen on our tables. It is easily cultivated, and should be in more general use. Its propagation and culture is easy, for after the roots have once taken, they require but little care. They are propagated either by slips from the old crowns, or cuttings of the roots of about two or three inches in length. Plant them in rows 18 inches apart, a foot deep, and about 6 inches from each other. They may be used the following autumn, but it is best to let them remain undisturbed for eighteen months or two years.

PARSLEY—This is a very good time to sow parsley. We recommend the curled variety.

Southern Agriculturist.

[From the Farmer's Cabinet.]

WINTER.

TO THE HUSBANDMAN.

The song of "the husking is o'er,
The corn-crib of plenty doth tell;
The garner o'erflows with its store,
And the barns with rich provender swell!
The toils of the husbandman, earth
With crops of abundance hath blessed;
Now, the plough boy to school hastens forth,
And the plough hath its "season of rest."

The herds from the pastures have come,
(No longer with green herbage crown'd)
To the barn-yard, their long winter home,
Where a carpet of straw is spread round;
And well have their riches deserved,
The care which the farmer bestows,
Who hath snug and warm stables reserved,
To shield them from pitiless snows.

The hickory piles, towering high,
Give promise to brighten the hearth;
While they bid us turn Charity's eye
To the poor and the needy of earth.
And the generous mug overflows
With cider, all sparkling and clear;
Which at eve, when without the winds blow,
Within is the farmer's "good cheer."

The housewife hath willingly sought
The "wool and the flax" of the field,
And clothing in carefulness wrought,
Her household from winter to shield,
While the rich golden butter and cheese,
Thrice rich, as the work of her hand!
Shows that luxury follows not ease,
But with industry goes through the land.

And oh! if the lovers of ease,
Who seek it in pleasure's turmoil;
Who try all that pledges to please,
And have disappointment for toil;
Would turn to some homestead at night,
And see the true peace of that hearth
Where contentment and competence light
A smile more enduring than mirth:

Sure, then, would the gayest admit
That happiness dwelleth at home,
And never was treasured, as yet
In the heart that for pleasure doth roam.
There seated beside the bright fire,
The helpmate her knitting doth ply;
While with book or some story, the sire
Makes time seem too swiftly to fly.

The children, a group, cluster round,
All smiling through roses of health;
Oh! where can those riches be found,
Surpassing the husbandman's wealth?
And ah! if there's gratitude due
From all, to the Father of love,
How oft should the farmer renew
His thanks for these gifts from above!

A HALF DURHAM BULL CALF—FOR SALE.

The subscriber has a beautiful red and white bull calf, HALF DURHAM, being got by a full bred Durham bull, which he sold last December for \$300, and out of a very large Cow owned by him. The cow when he bought her was represented as half Durham, but as she has no pedigree he designates her offspring as half Durham. His sire was a noble animal, out of an imported cow, and got in England by one of the Colling's bulls. To any gentleman who may desire an improving cross, and who may be averse to give the higher price of the full bred Durhams, this calf offers an excellent opportunity, as he has all the fine points of the latter, and would be taken by an incompetent judge for a full bred. His price is \$30—his age 5 weeks old.

oc 3

EDWD. P. ROBERTS,
Baltimore, Md.

AMERICAN FARMER.

A few complete sets for sale at this office.

ROBERT SINCLAIR'S NURSERY, AT CLAREMONT, NEAR BALTIMORE.



This Establishment now comprises between 20 and 30 acres, closely planted with a most CHOICE COLLECTION, from ours and foreign countries of the FINEST VARIETIES known—Of Pear, Plum, Cherry, Peach, Apple, Quince, Apricot, Nectarine, Grape Vines, Currant, English Gooseberry, Raspberry, Strawberry, English Walnut, Ornamental Trees, including Evergreens, Shrubs and Roses, all very thrifty and of larger size than any former year, especially the Peach, Apple, and Trees suitable for planting in streets.

Also, about half an acre of double Dahlias, now in full bloom, of almost every color and shade. Amateurs are invited to make their selections.

20,000 Morus Multicaulis Mulberry Trees, with large roots, 2 to 7 feet high, at liberal prices, varying according to size.

60,000 Cuttings of do. well ripened wood.

20,000 white Italian Mulberry Trees, 2 years old.

For further information please address the proprietor, near Baltimore. Trees and Plants ordered from him are carefully selected and faithfully packed, and forwarded by land or sea, as directed, and conveyed to the city without charge. Printed and priced catalogues will be sent on application gratis.

R. Sinclair, jr. & Co., Seedsmen, in Light st., act as agents, where necessary.

oc 17 5t

ROBERT SINCLAIR, senr.

THE ROCKVILLE ACADEMY.

The Classical department of this institution under the care of the Rev. John Mines, is now open under the supervision of Mr. JOHN NEELY, a gentleman of high scholastic attainments, unexceptionable character and considerable experience in the instruction of youth.

The Trustees congratulate the patrons of the Academy, and the public, that the vacancy occasioned by the retirement of their late learned and venerated principal has been so fortunately supplied.

The English departments of this school are under the control of two highly qualified and efficient instructors, Messrs. JOSEPH BRADDOCK and A. McLEAN SCOTT.

Few Academies in the Country present as many claims to public patronage as this. The number, ability and experience of its Teachers, the variety and extent of their instructions, the health of the country which surrounds it, and the morals of the community in which it is situated, combined with the unusually moderate terms of tuition, concur to recommend it to parents and guardians.

Course of instruction in the Classical Department.

Latin and Greek Language—French if requested—the higher branches of Mathematics—Natural and Moral Philosophy—Geography, with use of maps and globes, &c.

English Department—Reading, Writing, Arithmetic, Grammar, Geography and Mathematics.

Terms of Tuition—In the Classical department, \$20 per annum. In the English departments, \$8 to 16 per annum.

Board, including washing, may be had in respectable private families for \$100.

By order of the Board,

JOSEPH H. JONES, President.

RICHARD J. BOWIE, Sec'y.

Rockville, Montgomery county, Md. Oct. 20, 1837.

GESE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen's lawns. Also the large Westphalian Geese, from Richd. Barnett's stock, BOTH PURE WHITE.

oc 17 5t

ROBERT SINCLAIR, senr.

CONTENTS OF THIS NUMBER.

Horse feed—effect of the advance of cotton in England—Siberian wheat—on the cultivation of asparagus—on the employment of salt as a manure—economy of fodder—preservative powers of cold on animal food—the silk culture in a nut shell—reclaiming bogs and swamps—on milking cows—experiments on potatoes—silk culture in Maine—cultivation of horse radish, &c.—ode on winter—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	6 00	7 25
CORN, yellow.....	bushel	76	78
White.....	"	75	78
COTTON, Virginia,.....	pound	11	
North Carolina,.....	"		
Upland,.....	"	10	12
Louisiana — Alabama	"		
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's.....	"		
Superior, st. from stores	"	9 12	9 25
" " wagon price,.....	"	8 87	
City Mills, super.....	"	8 87	9 12
" extra.....	"	9 25	9 50
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhds.	hhd.	21 50	22 00
do. in bbls.	bbl.	4 50	4 62
GRASS SEEDS, wholes. red Clover,	bushel.	5 50	6 00
Kentucky blue.....	"	2 50	3 00
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	6 25	6 50
Slaughtered,.....	"	6 75	6 87
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LINE,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	38
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.		3 50
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	95
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 90	2 00
Red, best.....	"	1 80	1 82
Maryland inferior	"	1 60	1 70
WHISKEY, 1st pf. in bbls.....	gallon.	43	44
" in hhds.....	"	42	42 1/2
" wagon price,.....	"		39
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,.....	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

Baltimore Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13
Shoulders,.... do.....	"	10 1/2	10 1/2
Middlings,.... do.....	"	do	do 1/2
Assorted, country,.....	"	9	9 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	25 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 62	1 75
CHOP RYE,.....	"		1 62
EGGS,.....	dozen.	18	
FISH, Shad, No. 1, Susquehanna, barrel.		6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	2 75	2 87
Mackerel, No. 1, ———— No. 2	"	9 00	10 00
No. 3,.....	"	4 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virgi. 1 1/2
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg, do
Banks in Baltimore,.....	par	Petersburg,..... 1/2
Hagerstown,.....	3a	Norfolk,..... 1 1/2
Frederick,.....	do	Winchester,..... 1/2
Westminster,.....	do	Lynchburg,..... 1 1/2
Farmers' Bank of Mary'd, do		Danville,..... 1/2
Do. payable at Easton,....	1	Bank of the Valley,.... 1/2
Salisbury,.....	2 per ct. dis.	Branch at Romney,.... do
Cumberland,.....	3	Do. Charlestown, do
Millington,.....	do	Do. Leesburg,.... 1/2
DISTRICT.		Wheeling Banks,.... 3a 1/2
Washington,.....		Ohio Banks, generally 6a 7
Georgetown,.....	Banks, 1/2 p.c.	New Jersey Banks gen. 5
Alexandria,.....		New York City,..... 2
PENNSYLVANIA.		New York State,.... 3a 4
Philadelphia,.....	1a	Massachusetts,.... 3a 3 1/2
Chambersburg,.....	1	Connecticut,.... 3a 3 1/2
Gittsburg,.....	do	New Hampshire,.... 3a 3 1/2
Pittsburg,.....	3 1/2	Maine,..... 3a 3 1/2
York,.....	1	Rhode Island,.... 3a 3 1/2
Other Pennsylvania Bks. 4		North Carolina,.... 5
Delaware [under \$5]....	6	South Carolina,.... 8a 10
Do. [over 5]....	2	Georgia,..... do
Michigan Banks,.....	10	New Orleans,..... 12
Canadian do,.....	10	

TRY THE NEW ESTABLISHMENT.

NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch. Also, Cline's combined Plough.

J. T. DURDING.

do 12

if

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWARD P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.
R. SINCLAIR, JR. & Co.,
Light, near Pratt-street, Balt.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators or without horse power
Superior Grain Cradles F. H. Smith's Patent Lime
Weldron Grain and Grass Spreaders
Scythes A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Swingle Trees and Hames
Snathes Also, a great variety of
Hay Forks and Rakes Plough Castings, constantly on hand for sale
Manure Forks, Shovels, &c. by the piece or ton. All
English Corn Hoes kinds of Machine Castings made to order; repairs on
Superior American made Castee Hoes, with handles
Wheat FANS, of various sizes
Mattocks, Picks and Grubbing Hoes
Corn Shellers
Liberal discount made to those who purchase to sell again.

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
Jy 4 J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardihood, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 39.

BALTIMORE, MD. JANUARY 23, 1838.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: JANUARY 23, 1838.

STOCK OF FLOUR.

We have read many speculations and numerous statements of the stock of flour on hand; but while we trust that there will be a full supply to meet the demands of the country, we must confess that we repudiate every idea of the stock being large. Indeed, we are fully satisfied that a great mistake has been entertained with respect to the quantity of wheat grown last year, and believe, that in the aggregate, it was very far from being an average crop. We know that the yields in many parts of the country very far exceeded all anticipations that were entertained; but then we know also, that, in many wheat growing districts, for want of seed, much less than the usual quantities were seeded, and hence the decrease in product.

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

We refer our readers to our advertising columns for the advertisement of the proprietor of Niles' Register, offering complete sets of that time-honored and valuable publication for sale. As a register of events there is no paper in the country that can compare with it, and we are sure that we hazard nothing in saying, that there is no work so indispensable to the library of the professional or

public man. Besides containing a faithful compendium of all passing events, it comprises within its pages more copious reports of legal decisions, and a greater number of valuable public documents than is to be found any where else.—As a book of reference then, to the citizen interested in the occurrences of his country—to the lawyer who wishes to refresh his memory on adjudicated cases—and to the statesman, who desires to turn to public documents, it is an indispensable companion. And as an opportunity may not speedily again occur, we trust all who are able to possess themselves of a copy, will seize the present occasion to do so.

We are pleased to find by the following extract from a letter which we received from an esteemed correspondent, in Georgia, that the silk culture has a most zealous advocate in one of her best citizens, and while we congratulate the friends of the cause on so valuable an acquisition to our ranks, we must indulge the hope that his good example will have the effect of stimulating his neighbors to follow in his noble footsteps. The letter is dated,

"Near Augusta, Geo. Jan. 8, 1838.

"I am much pleased to see that you take so lively an interest in the cultivation of the silk-worm, because I have no doubt, nor have I had for the last fifteen years, that silk would become a great staple of our country. The cotton planters of the South, so long as cotton keeps up to from 8 to 10 cts. per pound, will not embark in an enterprise so new and so little understood by them; but let cotton get so low, that the planters will deem it necessary to set their wits to work to find something that will be likely to pay them better, and silk will be the article. I am much gratified that the *Morus Multicaulis* has found its way into many parts of Georgia. I imported some years since a few roots of the *Morus Multicaulis*, and have ever since been offering cuttings gratis, but such is the dislike of our planters to engage in new enterprises, that I have been unable to get them to accept of many. Last spring I planted 100 cuttings in the mountain region of Georgia, and at the same time distributed about as many in the same section, and near by in Alabama. I have seen them since, and they were most flourishing.—I have a plantation in Western Georgia, and expect ere long to domiciliate there for life, and if I inform you in the summer of 1839, that I have an entire suit of silk, the product of my own worms, you need not be surprised, for it is fully my intention. And if I do not manufacture su-

gar for my own consumption, and some of my neighbors, it will not be for want of trying, if you will send me the best seed.

"I have purchased a few fine cows, (free from English blood,) that I have no doubt will be superior to the best that can be purchased in England, for our use or section of country; and my cows will give as much milk as any of the English cows. They are more hardy, and eat less. I purchased them for 30 and 40 dollars, cow and calf. I have tried our English cattle—so I have our native cattle, and I am decidedly in favor of the native. If I should live three or four years, I will tell you something more of our native cattle.—Meantime I wish you prosperity and happiness, and am

Your most ob't serv't."

THOUGHTS ON THE MULBERRY CULTURE.

As the information and views contained in the subjoined copy of a letter, which we addressed to a correspondent residing in Anne Arundel county in this State, may be of interest to the general reader, we have thought it to be our duty to lay it before the public. As the purport of our correspondent's letter may be gathered from the questions he propounded to us, which are embodied in our reply, we have omitted it.

Baltimore, January 18, 1838.

DEAR SIR,—Your esteemed favor of the 15th instant, by Mr B*****, was duly received, and I hasten to reply to its contents. No apology was necessary for propounding your very interesting questions, as it always gives me pleasure, heartfelt pleasure, to gratify every inquirer, according to the measure of my very humble abilities, even though he may chance to be a stranger; and let me assure you, that that pleasure is greatly enhanced, in the present instance, by the reflection, that the interrogator is one whose relations of friendship with me, give him a right not only to ask, but to expect to receive ingenuous answers to his questions.

You say, that you have "read my memorial to the General Assembly, and have been so far inoculated with the silk worm fever, as to desire the information which your queries call for."—Those queries, I shall answer in the order in which you have propounded them; but before I do so, let me express my regret, that the low state of the "*silk worm fever*" in this State, places you entirely beyond the pale of its infection. Would that it were either *endemic*, *epidemic* or *infectious*; under the existence of any of these forms of the disease, if I may so term it, I should have hopes of its producing as radical and salutary a change in the pecuniary affairs of Maryland, as have the cholera in those diseases peculiar to our

country, previous to the visitation of that dreadful scourge of humanity upon our shores.

"1st. Are there not diseases to which the Silk worm is subject, which prove mortal and defy remedies?"

This interesting creature, like man, has to contend with many diseases, and like those which afflict the latter, there are some which *defy remedies* and prove mortal. Without entering into a pathological description of those diseases, or of their curative treatments, I will barely enumerate them, and refer you to my Manual for the necessary prescriptions. They are the *passis*, a disease which appears after the first moulting—the *grasserie*, a disease to which they are subject towards the second moulting, and towards the third and fourth ages—the *lusette* or *clairette*, a disease which attacks them in their fifth age—the *yellows*, a malady to which they are sometimes heir at the end of the fifth age, when they are about to spin—the *muscardine*, or *numbness*, a disease which also attacks them in their fifth age—the *tripes* or *mort blanc*, a disease which mostly appears during moist and rainy weather, or which may owe its paternity to the filthiness of their apartment.

This, you will conclude, is almost as appalling a catalogue of diseases as is to be found in any learned treatise on *Nosology*; but believe me those diseases are by no means so formidable as they appear; for as they may all be traced to some one, or more of these causes, combined,—*impure air—contracted apartments—exposure to sudden atmospheric transitions, irregular or over feeding, stinted feeding, or improper food*—they are all within the control of *preventive means*; and an ounce of prevention, as the old saying has it, is worth a pound of cure. By proper *ventilation of their apartments—by the correction of damp air proceeding either from rainy or moist weather—by keeping them clean and free from vegetable offal, or the accumulation of their own ordure—by preserving a slight brisk fire in their apartments in wet, damp weather—by feeding them regularly, in proper quantities, and with proper food—by fumigating the room whenever a mephitic exhalation is observable*;—by following these rules, one and all of the above enumerated diseases may be prevented; and for myself, I should rely entirely on these preventive means, being so infinitely preferable to all curative ones—my plan is, to keep the subject *well*, and save him from the painful relation of *patient*.

The recipes for fumigations most to be relied upon, are, 1. 6 oz. of common salt, 3 oz. of *oxyde of manganese*, 2 oz. of water and two-thirds of a spoonful of oil of *vitriol*—the whole to be put into a black bottle, and kept corked: whenever fumigation is necessary, uncork the bottle and move *briskly* through the room, keeping the bottle above your head during the time. After passing through the avenues of the hurdles twice or thrice, cork up your bottle and put it away in some safe place until wanted again—2. *Chloride of lime* to be spread on plates and placed at convenient distances throughout the apartment. This I look upon not only as the *safest*, but the most efficacious corrector of fetid air. Its virtues for this service were first discovered by Mr. G. B. Smith, of this city, but subsequently was *re-discovered* by an illustrious professor of Paris, and made the

subject of a learned paper to *his astonished Academy*. So you see, after all, that all these diseases are to be overcome by *cleanliness, proper feeding and fumigation*.

"2. Are there not enemies that are highly destructive to the worms, and prevent their developing their cocoons?"

They too, like man, have their enemies. There is the industrious *ant*, *birds*, *fowls*, *mice*, *rats*, *weazels*, *lizards*, *flies* and *spiders*, which each and all delight to revel upon those inimitable *artists*; but they too, are only formidable in name, as they are easily disposed of—so let them not disturb the quiet of your slumbers.

"3. Is the knowledge of the use of the machine by which the Silk is disengaged from the cocoons difficult of attainment?"

With the exception of the Italian Reel, I have never seen any of the various machines invented, in operation, but *Brookes*. Of the Italian, I have no opinion. But I will wager my head to a "*dernier*," that your good lady, or either of your daughters, would obtain a perfect knowledge of the latter in half a day. It is so simple in its construction, so easy of comprehension, that any one that runs may read all its mysteries. Besides, this machine unwinding the gossamer thread, it makes *choice sewing silk*, at the same operation, a thing not to be despised in these money-loving-times, as it adds three dollars to its value per pound, and a woman can spin two-thirds of a pound per day, thus making her labor equivalent to two dollars in that time.

"4. Will the ordinary outbuildings of a farm answer for cocooneries?"

I answer, yes. He who has a sound *barn*, that will keep out wind and rain, or a *tobacco house*, possessing the same qualifications, has a cocoonery already built. In France and Italy, the peasant's hut, the more comfortable farmer's dwelling or barn, are their places of feeding. To be sure, in both these countries, there are wealthy individuals, who have extensive edifices dignified with the name of *Laboratories*,—which we Republicans have translated into *Cocooneries*,—but costly houses are not at all indispensable—the pride of a proprietor may be thereby gratified, but the worm will just as contentedly take his meal in a barn or tobacco house, as in a palace; and if it be kept *clean*, dry and properly ventilated he will thrive as well; for believe me that "*good digestion*" would "*wait on appetite*" *there* with as keen an edge. So you see, that you who have both tobacco houses and barns need not be frightened at the expense of erecting a *cocoonery*, as you have several goodly ones already built to your hand, which need nothing but the fixtures to make you the rival, so far as convenience and utility are concerned, of the proud and wealthy Count *Dandolo*, who derived his most honored celebrity, from being the most extensive silk-worm raiser in all Italy.

"5. What, in your opinion, would be the effect of legislative bounties?"

To this question I answer, *most beneficial and salutary*. To prove the correctness of this emphatic opinion, I would refer you to the effect of the bounties recently granted in the State of

Maine, for the encouragement of the growth of wheat. *Maine*, as I presume you know, has always heretofore been a dependant upon other States for her bread stuffs. In 1836, it has been computed upon good data, that she was purchaser to the amount of 150,000 barrels of flour of other States: by an act of her legislature, I think passed in that year, a handsome bounty was offered to the grower of every 20 bushels of wheat, and the effect has been truly "*beneficial and salutary*"—it has acted like a charm upon the farmers of that State—men who had been nurtured in the belief, that the climate and soil of *Maine*, from the days of their youth, were inauspicious to the growth of this grain, became sudden converts to the faith that it could be grown. They went to work, turned up their ground, put in their seed, and what is the result? I have stated that in 1836, she was a purchaser of 150,000 barrels!—and now we are told, that in 1837, in one "*little year*," her hardy and industrious yeomanry have produced 1,600,000 bushels of wheat, which is equal to 320,000 barrels of flour; having in that short period changed their relative condition from that of *buyer*, to the more profitable one of *seller*.—This has been thus magically, as it were, brought about by the liberal policy of the legislature. We have been assured, upon competent authority, that the wheat bounties paid, and to be paid, by the treasury of *Maine*, for wheat grown in that State in 1837, will amount to \$150,000. This is, to the superficial thinker, a large sum to be appropriated for such a purpose; but when the sum of individual and public good that will result from it is properly and rationally considered, it will be found to preponderate over every consideration of a pecuniary character. What was the condition of *Maine*? A dependant upon her sister States for the very bread consumed by her people.—What is *now* her condition? She has not only produced enough for home consumption; but has a *surplus* for exportation. Who, as a citizen of *Maine*, in whose bosom the glow of patriotism dwells, will object to an enactment so wise, so munificent? There is none so recreant to the calls of those generous impulses which dignify mankind and render him at once the object of love and respect. This one instance must suffice—though I could bring numerous others to my aid—to convince you, that bounties on the growers of Mulberries and feeders of Silk worms, would prove "*beneficial and salutary*." They would excite enterprise, stimulate industry, and develop resources, both mental and physical, that are not now "*dreamt of in your philosophy*." The mere circumstance of one's being patronised by his government, is sufficient to call into vigorous action the most latent energies of his mind, and in proportion as he is patriotic or virtuous, so will his exertions be directed to the achievement of the laudable object. Why is it, that a man, who, by his vices, has lost his *caste* in society, becomes indifferent to public opinion? It is because he feels that no one cares for him; that he is an object loathed by those who were once his friends. But on the other hand, convince a man that he has the respect of his fellows, that by his actions he has fixed upon their regards, and call upon him to achieve some noble enterprise, and difficulties and danger dissolve before his daring; he overcomes every obstacle. The *rationale* of

the thing is easy of solution—his self-esteem has been gratified; his ambition aroused, and fame having marshalled him the way, he grapples and overcomes all impediments between him and the lofty goal of his aspirations, with more than a giant's strength.

“6. What amount in money-value, will any given number of acres in the Mulberry and Silk Culture, give to the labor of the State.”

This question “though last is not the least in my affections,” for it opens a wide prospective field of promise for the people of my native State, if they should but have the wisdom and forecast to improve the opportunity now presented for their acceptance. As your query gives me the privilege of assuming any given number of acres as my *datum*, I shall fix upon the same number named in my memorial to the General Assembly, and show by my detail, that the aggregate sum therein stated, is much, very much, below what may be realized. I state as my belief, in that paper, that in ten years, if the people so will it, the agricultural products of the State may be increased in amount, by the Silk culture, *five millions* of dollars; the data I therein furnish, proves that that sum is not a moiety of the amount that may be produced on 5,000 acres. My object in thus keeping down the amount of product, is to be found in my desire to make no over sanguine calculations that contingencies might prevent the fruition of.

With these explanatory remarks, which I make for your satisfaction and in justification to myself, I will now proceed to answer your sixth and last query, and availing myself of its scope, I will presume that the culture in Maryland has so far progressed, as that her citizens have 5000 acres under cultivation. If the species of mulberry grown be the *Morus Multicaulis*, I maintain that each acre after the first year, will be capable of affording a sufficient quantity of foliage to feed a *million* of worms, and this, you will readily conceive, to be possible, when I tell you that these trees, or rather *shrubs*, for ordinarily, they do not grow higher than from 6 to 8 feet, will bear 3630 of them being planted on one acre, the eligible distance being 2 by 6 feet. Though low of stature, they make up for that deficiency in the number of their stalks,—hence their cognomen, *Morus Multicaulis*—the *many stalked* mulberry—and those stalks are filled with lateral branches from their starting place at the earth, to near their extreme points. Their leaves, too, are of great size, many of them being from 10 to 13 inches either way, and being so clear of stems, or indurated fibres, as to be nearly all edible by the worms.

Having supposed that 5000 acres are in the mulberry culture, I will give you the *data* of my calculations, in order that you may make your own, and thereby satisfy yourself as to the justness of mine. As 1 acre will feed 1,000,000 of worms, and 3000 cocoons will make 1 lb. of silk, so will 1,000,000 of cocoons make 333½ lbs. of silk; and as 1 acre yields 333½ lbs. of silk, so will 5000 acres yield 1,666,666½ lbs. of silk. It will require 10 children between 7 and 10 years of age* to gather the leaves and feed the worms

which can be supported on an acre. Besides these, a careful person, male or female, should overlook them and see the work is faithfully done —this latter person, I shall leave out of my calculation, as the duty should either devolve on the head of the family, or some one of his household in whom he can confide, and therefore no actual *money* charge upon him. Then as it will take 10 children to an acre, so will it take 50,000 to attend 5,000 acres. If these children receive 75 cents per week for their labor, and they ought to get that or more, as the culture will bear it, they will each earn during the 6 weeks of the feeding season, the sum of \$4½; or the wages of the 50,000 during that time will amount in the aggregate to \$225,000. If they were to get \$1 per week, the aggregate of their wages would be \$300,000.

This is but one branch of the laborers to be employed. After the worms have spun their silk, then comes in the female department to convert the cocoons into sewings, or raw silk. The 5,000 acres as I have shewn will produce 1,666,666½ lbs. of silk. If this quantity be spun into sewing silk, as one woman is only competent to spin ½ lb. per day, and there are but 213 working days in a year, she can only make 142 lbs. in that time, so that to convert the whole quantity into sewing silks, it will require the services of 11,737 women to do so: now if these be allowed \$3 per month, their aggregate wages will amount to \$422,732 for their year's services—if \$4 per month, it will be \$563,376. The money value of labor will then stand thus:

For 50,000 children as feeders at 75 cents per week, - - - -	\$225,000
For 11,737 women as spinners at \$3 per month, - - - -	423,732
	\$648,732

Or thus:	
For 50,000 feeders at \$1 per week,	\$300,000
For 11,737 spinners at \$4 per month, - - - -	563,376
	\$863,375

Should a portion of the product be made into *raw* silk, as it doubtless will be, fewer females will be required for that service, as the silk *reels* proper, unwind a much larger quantity of cocoons than the machine combining both the operation of spinning and reeling. I should say, that four times the amount of work may be done, so that a deduction of female laborers in that proportion ought rightfully to be made for whatever quantity of raw silk which should be made. But suppose I assume as the sum of money-value for labor to be given to the State by this culture, is only \$500,000, and I would then ask you, if the laborers employed be indigent white females and children, what a volume of real comfort and happiness would that sum confer upon that worthy, though suffering, portion of our state? How many countenances that are now dimmed with suffering, would it brighten? Look around you sir, in your own immediate neighborhood, if there be not many a poor widow with her helpless offspring, to whom such employment would not be emphati-

but grown females and infirm males are equally eligible attendants.

cally a God-send? Have you not often in your experience through life, seen a poor man, the head of a family cut off, leaving behind him a widow and some four or five children utterly destitute? —In looking on such a scene of desolation, have you not often felt your heart's pulsation quicken almost to suffocation? If you have witnessed such a scene, so has every man in every neighborhood in our State—and to such—to thousands of suffering poor which are to be found in all the States of this Union, this branch of agricultural employment, would prove of the very first importance. Instead of the children of the poor being *burthens* as they now are, they would become so many *sources of revenue* to their parents, and while their labor would form an important item in the sum of individual wealth, so would it comprise one of equal moment in that of our State, for it is of such materials that national wealth is constituted.

It may be said that a large portion of this labor would be performed by the slave population of our state; but this does not in the least change the amount of appreciation given to the labor of Maryland; for their services would be just as valuable though their masters should be the recipients, as if the same amount was paid away to free white laborers, with this in favor of their masters, that it would be so much *saved*, and as the proverb says, a penny saved is a penny gained.—It is, therefore clear, that whether the labor be performed by the one description of laborers, or the other, the increased value in the labor of the State would be the same.

I have thus far confined myself to the *value* of *personal* labor, because I thought, from the *phraseology* of your question, your intention was that I should so construe it; but as I have thus confirmed to what I conceived to have been your views, let me take another and broader view of this subject. The *money-value* to be given to the *labor* of the State, by the occupation of 5,000 acres in the cultivation of silk, is what the silk produced will bring; for it is the *labor*, after all, that imparts value to the commodity from beginning to end. Let us see what that is. Now, as I have before shewn, 5,000 acres will produce 1,666,666½ lbs. of silk. This, if sold as *raw silk*, at \$4 per pound, would be worth \$6,666,666 66½—if as sewing silks, \$11,666,666 66½. So you see, my dear sir, what an immense appreciation, even 5,000 acres of our worn out soil is capable of giving to the products of the State—or as you have it, perhaps, more properly, to its *labor*?

I think you will coincide with me in the opinion, that in *ten years*, the number of acres of land named above, may be appropriated to this culture without in the least interfering with our present systems of agriculture. And here let me assure you of the sincerity of my belief, that whenever this result shall have been brought about, that Maryland will be one of the richest and happiest states in the Union. What is to prevent us from becoming so? Apathy on the part of ourselves, and neglect on the part of those whose province it is to nurture and protect the public interests. Let me ask you sir, if when many of our most enterprising and industrious citizens are departing from among us, to return no more, as *citizens*—when many estates are left unoccupied, and

* We have said children of these ages, because they are just as competent to the task as adults—

neighbourhoods in some of our counties literally broken up, if it is not mete that some noble effort should be made to arrest the evil? Does it not behove those who represent the descendants of that gallant band of granite hearts, who perilled for our liberties, to do something worthy of that fame they won so dearly? Does not self-esteem, patriotism, and state pride, all combine to demand that some substantive measures should be adopted to court and bring out the resources of Maryland. Our climate and soil are most happily adapted to this culture; and as it is well known that poor soil makes the best silk, why should we not embrace the occasion to render our worn-out fields available? To give profitable employment to our population—and especially to that portion of them whose helplessness commend them to our sympathy and protection? Self-interest, humanity, and public policy alike dictate the course.

Let me ask your permission to claim your attention a few moments longer, while I apply a few remarks to individual cases. An industrious poor man has *half an acre* in the culture, he and his working hands attend to his other farming operations—his wife and his small children attend to the feeding of the worms, and the former after the cocoons are made, converts them into sewing silks, by which she realizes a *clear profit* of upwards of *seven hundred dollars*, a much larger amount than her husband and some four or five working hands realized off of a hundred acres in ordinary culture—Another, with larger means, has 1 acre in Mulberry, his wife and children attend to it, and he gains by the operation a net profit rising *fourteen hundred dollars*. A third, with still larger means, has two acres in the culture, and he nets a profit over \$2,800—and these profits are exclusive of the value of their respective families' services. A fourth, with ample means, has his 10 acres in the culture,† and he receives a net profit nearly amounting to \$15,000 a year. Now I pray you to picture to yourself the relative degree of comfort and opulence which such a state of things is calculated to produce in a very few years. Examine the question in all its bearings; make the proper application of its benefits and its blessings, and I am sure you will stand up the bold and fearless advocate of the cause.

I fear I have taxed your time too heavily; but should my fears prove well grounded, my intentions must plead my apology; and in conclusion, permit me to subscribe myself.

Very truly, yours,

EDWARD P. ROBERTS.

† It is but proper that I should here state that such large culturists will find it to their interest to employ horse power, which would prove a saving in the cost of labor of at least seventy-per cent.

LARGE HOG.—A hog raised by Mr. Jacob Winder, near this place, was slaughtered yesterday, and weighed 463½ pounds. It was exhibited in the public square, on the preceding day, and many bets were made on its weight. The result proved that the judgment of the *knowing ones* (the butchers) is not always to be relied upon. In this instance all who expressed an opinion, or made bets, were deceived, or lost their money—they having much underrated his weight.—*Hag. Cour. & Eng.*

[From the Southern Agriculturist.]

OBSERVATIONS

On the employment of Salt in agriculture and horticulture, with directions for its application, founded on practice. By CUTHBERT WILLIAM JOHNSON. 5th edition. London, 1837.

(Concluded.)

'HORTICULTURE.—In the garden, much good may be effected by a judicious employment of common salt. I am indebted to my brother, Mr. George Johnson, for several important experiments with salt, in the kitchen garden; they were made with much care, and I can vouch for their correctness.

'The soil was sandy; and I abridge from his paper, read before the London Horticultural Society, in November, 1821, the following detail of the result:

'Windsor Beans—Produce in bushels per acre:

- | | |
|--|------|
| 1. Soil without any manure, | 135½ |
| 2. Soil dressed with 20 bushels of salt per acre, week before seed time, | 217 |

'ONIONS.—Produce per acre:

- | | | | | |
|--|-------|------|------|------|
| | tons. | cwt. | qrs. | lbs. |
| 1. Soil manured with 20 bushels of salt and 10 tons of farm-yard manure, | 3 | 12 | 3 | 12 |
| 2. Soil manured with 12 tons of farm-yard manure, | 2 | 10 | 2 | 19 |

'CARROTS—Produce per acre:

- | | | | | |
|--|----|----|---|----|
| 1. Soil manured with 20 bushels of salt and 20 tons of manure, | 23 | 6 | 1 | 18 |
| 2. Soil, 20 tons manure only, | 22 | 18 | 0 | 26 |
| 3. Soil manured with 20 bushels of salt only, | 18 | 2 | 0 | 0 |
| 4. Soil without any manure, | 13 | 4 | 0 | 0 |

'PARSNIPS—Produce per acre:

- | | | |
|--|-------|------|
| | tons. | cwt. |
| 1. Yard manure 20 tons, salt 20 bushels, | 6 | 15 |
| 4. Yard manure, 20 tons, | 6 | 11 |

EARLY POTATOES—Produce per acre:

- | | |
|---|----------|
| | bushels. |
| 1. Soil without any manure, | 308 |
| 2. Soil manured with 20 bushels of salt per acre, | 584 |

I have, in my Essay, given at length the experiments of Dr. Priestly, upon various plants vegetating in salt and water. He found that the use of salt materially protracted the existence of the plant. Flowers, kept in water vases, continue much longer in bloom, if a portion of salt is added to the water. It is a common custom with the importers of exotic plants, to dip cuttings into salt water. Before the adoption of this plan, they almost invariably perished in the passage.

'To explain these curious facts, it is supposed that the salt acts as a stimulant to the plant. The word stimulant, however, being merely used for want of a better, as most of the amazing processes and wondrous phenomena of vegetable life are too inscrutable but for the eye of Him

"Who spoke the word, and Nature moved complete."

Among my very last letters received on the use of salt in the cultivation of plants, was one from an eminent florist, near Paddington, Mr. Thomas Hogg, and I will here transcribe his own words:

"From the few experiments that I have tried with salt as a garden manure, I am fully prepared to bear testimony to its usefulness. In a treatise upon flowers, published about six years since, I

remarked that the application of salt, and its utility as a manure, was yet imperfectly understood. It is a matter of uncertainty, whether it acts directly as a manure, or only as a kind of spice or seasoning, thereby rendering the soil a more palatable food for plants.

"The idea that first suggested itself to my mind, arose from contemplating the successful cultivation of hyacinths in Holland. This root, though not indigenous to the country, may be said to be completely naturalized in the neighborhood of Haerlem, where it grows luxuriantly in a deep sandy alluvial soil; yet one great cause of its free growth, I considered, was owing to the saline atmosphere; this induced me to mix salt in the compost, and I am satisfied that no Hyacinths will grow well at a distance from the sea without it. I am also of opinion that the numerous bulbous tribe of Amaryllises, especially those from the Cape of Good Hope; Ixias, Alliums, which include Onions, Garlic, Shalots, &c.; Anemones; various species of the Lilly; Autholyza; Colchicum; Ranunculus; Scilla, and many others, should either have salt or sea sand in the mould used for them.

"I invariably use salt as an ingredient in my compost for Carnations: a plant which, like wheat, requires substantial soil, and all the strength and heat of the summer, to bring it to perfection; and I believe I might say, without boasting, that few excel me in blooming that flower.

"If I wished to refresh and improve a soil of what is called an old worn-out garden, exhausted by fifty years' cropping, or more, I would give it (½ or ¼ part at a time) a good dressing of lime in the autumn, spreading it as soon as it was slackened, and forking it in immediately. I would, a week or two after that, dig and trench it well in the rough, and lay it up for the frost to act upon; and then in the spring I would give it a good dressing of salt, (not less than six bushels to an acre.) The good effect of such treatment would be manifest for two or three years after."

The above facts are conclusive; but to them we must add others of our own experience. During the last season, we applied salt to our land as follows:

1. In the middle of a sixteen acre field of cotton, we manured one acre with salt, at the rate of one quart to the task row (105 feet.) The salt was put upon the list, and immediately after bedded upon. The acre thus manured was formerly a cow-pen, but had been planted three years previous without producing any thing but stalk—this year it produced well for the season, and excelled every other part of the field which had been highly manured with well rotted compost. The appearance of the cotton grown upon it, from the beginning to the end, exhibited a healthy and vigorous growth, and had it not been for the severe storms we encountered, the yield would have been great.

2. On a field of high light soil, cleared late in January last, we applied one pint of salt to the task row, as in the experiments above. That we might test its effect, we left one row in the field unmanured with salt. The contrast was manifest. From the time the cotton came up to its maturity, that on the salted parts appeared better, and while the unsalted cotton dropped most of its

fruit, from the effects of storm and rain, the other suffered comparatively little. New land has been always considered precarious for cotton the first year; we are now of opinion, that if a sufficient quantity of salt is always applied to the same, that a good crop can be calculated upon. We believe no new land in our parish did as well as this.

3. Upon a field of fifteen acres, we applied as in the first experiment one pint of salt to the task row. We planted the land in corn; and though poor, we applied no other manure. The adjoining field of the same quality of land, was manured with green rye, ploughed in. The salted land yielded full five bushels to the acre more than the other.

We must here repeat, that the past season was not one for testing experiments. The several severe storms have placed the best manured and tended field upon a par with the most neglected. So well, however, are we convinced of the beneficial effects of salt, that we shall pursue the system extensively the approaching season, and if spared, we shall note the results for another year.

[From the Magazine of Horticulture.]

A FEW SUGGESTIONS IN REGARD TO PLANTING OUT FRUIT TREES.

Does it not frequently happen, that those about to commence planting trees are not sufficiently aware what a very important item the soil forms? Where the soil is not particularly adapted to the growth of fruit trees, is it not much better to devote a sufficient quantity *entirely* to that purpose, and render it fit by deep ploughing, trenching, manuring, and, in short, to make the soil of a suitable depth,—say eighteen inches,—than to plant our trees promiscuously over a large tract?

It is believed that a much greater quantity of fruit, of a much superior quality, may be grown on one acre of land naturally suitable for the purpose, or made so by art, than can be raised on several where its adaptation is not taken into the account.

It is doubtless true that trees may be made to flourish for a *while*, in a soil naturally barren, (or exhausted by injudicious cultivation,) by digging the holes, for their reception, very large and deep, filling them, when the trees are being transplanted, with a rich compost; but will they continue to grow, when they shall have extended beyond the bounds of the original excavation? Will they not, by degrees, become mossy, dwindle for a while, and finally sink into premature decay?

When one is obliged to plant trees on a sandy or gravelly soil, perhaps ditch or pond mud, (or clay in a less quantity,) with a suitable proportion of compost manure, spread on to the depth of several inches, and ploughed in, would be sufficient where apple or pear trees are to be cultivated.

Where cherry or plum trees are to be grown, it would be better to cart on a sufficient quantity of rich loam, sods, &c.; for plums, where it is practicable, perhaps a third or quarter part of salt marsh mud may be used with advantage, to make the soil of the depth.

Where peach trees only are to be transplanted, a light dressing of compost, consisting of stable manure, lime wood ashes and loam will answer the purpose.

An error, which has been practised to a considerable extent, is, that of transplanting the roots

at a much too great depth for the trees to flourish with vigor.

The distance between the trees must be regulated by the size which they will probably attain: they should not be planted so near as to interfere with each other, when fully grown.

When manure is spread round fruit trees, an erroneous practice prevails of putting it too near their trunks.

Some varieties of apples and pears (it is probably the case with other fruit trees, vines, &c.) will flourish where others will not; the Roxbury russet apple requires a strong and rather moist soil to produce large and fair fruit; the Rhode Island greening flourishes on a comparatively light and dry loam; and the American summer pearmain (the tree is of small growth,) has the reputation of succeeding on light or sandy soils.

By some the autumn is preferred for removing trees, and by others the spring. The spring is doubtless to be preferred for the peach and plum: as regards apples and pears, if the ground where they are to be set is somewhat moist, transplant them in the spring; if it is rather dry, the autumn is quite as well. The general rule for fruit trees is, when the sap is dormant.

Select young and thrifty trees from the nursery, of good size, not forgetting the great importance of their having sufficient roots; dig the holes about six inches in diameter larger than the roots are, when extended, and let the trees be planted not more than one inch deeper than they grew in the nursery. It is generally advisable to put some *mulch* (bushes which have been mown answer a good purpose,) round trees the ensuing summer after planting them, if the weather should prove dry, to be removed in the autumn.

After trees have been transplanted, they will require attention to see that they are not preyed on by insects, that they do not get loose, and are kept in proper form by a judicious pruning; which ought to be performed annually, when the sap is in full motion.

If proper pains have been bestowed on making the soil suitable, and if the trees have not been transplanted in a *hurry*, should you not have the satisfaction of seeing them flourish, you will have no cause of self-reproach. E. M. R.

Dedham Dec., 1837.

[The above most excellent hints are from the pen of an amateur well versed in the cultivation of fruit trees. The careless manner in which the operation of planting trees is performed, is the great source of most of the complaints which are so often made about their future success. Let the above remarks be treasured up by all who are about planting fruit trees of any kind.—*Ed.*]

TRAINING VINES.

N. HAVEN, (CONN.) March 13.

JESSE BUEL, Esq.—Sir: I have had the Isabella Grape in my garden since 1819; but the crop of fruit has not been good and full, oftener than once in three years. The failure has usually been caused by the *rotting* of the green fruit, about the time it attains its full size.—Every means of preventing that I could find any where suggested, has been fully tried; such as long and short pruning and no pruning—thick and spare, upright and horizontal training—topping the fruit branches, thinning them out, plucking the leaves, &c. without any perceptible benefit.

But having read or been informed, (I cannot say which) that in the vineyards of Madeira, the vines are trained on a horizontal arbor, about three feet high, in such a manner as completely to shade the whole ground, it occurred to me that it might be important, where the summer sun is very powerful (as with us) to shade the roots of the vines. To ascertain the effect of such a protection of the roots, in the fall of 1834, I pruned about 20 young vines, which had grown at random, so as to leave from five to eight branches, spreading all ways from the centre or root, like the spokes of a wheel, about four feet. These I tied up to stakes set in a circle around the vine, leaving the branches from twelve to eighteen inches from the ground. The vines were left in this state to grow as they would and by midsummer (1835) they completely shaded the ground, for six or eight feet from the centre. *No fruit rotted on these vines.* The experiment was continued upon the same vines last season, and with the same result. During both seasons the fruit on vines trained upon an upright trellis, (the roots of course exposed to the sun) has been in a great measure *lost by rotting*.

This experiment I should consider decisive, but for one circumstance, the vines first mentioned were *young* and the others *old*. Whether this has affected the result, is yet to be determined.

I ought perhaps to remark (what I was not prepared to expect) that the fruit ripened on the vines, shaded, as before described, a fortnight earlier than the others, and was in every respect better. N. D.

October 10th, 1837.—The experience of another season gives the same result stated above, except that none of the grapes ripened, being destroyed by the frost October 4th–5th. To ascertain the effect of the vine's *age* upon the fruit, I trained a vine upon a trellis, last spring, of the same age with those whose roots have been shaded, and the fruit upon it has been much mildewed and considerably rotted, while the fruit on the other vine has been bright and sound.—*Cultivat.*

[From the Yankee Farmer.]

FARMING IMPLEMENTS.

The following conclusion of a report of the Penobscot Agricultural Society applies to many farmers in different parts of the country. There is generally great neglect as to agricultural tools, implements, and labor-saving machinery. While many farmers are paying a high price for labor, or neglecting necessary work for want of it, and sometimes losing much by not being able to accomplish their work in due season, they are neglecting to procure new and improved implements &c. which, at a small expense, would enable them to do away or greatly lessen these evils.

In the season of hoeing, we should prefer one hand with us and a cultivator, to two hands without this useful implement; we could do more work, do it easier and do it better. Some farmers suppose that the cultivator is useful only on smooth light tillage, but this is a great mistake; we have used it to good advantage on ground that was uneven and rough with turfs and loose and fast stones. It will not do so much good on a rough field, nor will a plough; where the plough can be used to tear up and turn over the soil, the cultivator may be used to loosen and pulverize it.

"It is with regret that we are compelled to make this very meagre report of one branch of the exhibition, which should, and might have afforded great interest and eminent usefulness to the farming community. The implements of the farmer are as essentially necessary to the prosecution of his work with profit and ease, as are the contents of the carpenter's chest to him; and no artisan of that craft is 'a workman' unless he possesses a sufficient number and variety of instruments best adapted to his vocation.

How different the case with our brother farmer! How few are his implements! How ill adapted to the ease, profit and convenience of his multifarious occupation. Instead of procuring the tool best calculated for a particular object, he 'puts up' with anything that has the semblance to the thing he needs. It is scarcely to be credited, the few tools to be found upon most farms, and good farms too, in our vicinity.

A plough, harrow, hoe and shovel, with a small sprinkling of forks and rakes, and a few nameless et ceteras, comprise the whole range of most of our tool sheds; and these too, so ill constructed! requiring in many cases, twice the power to use them that better contrived implements do; uselessly consuming time, talent and temper; to say nothing of the wear and tear of conscience that such fretting is apt to induce.

In this connection it may not be improper to remark, that one great cause of the want of success in agricultural pursuits may be found in the high price of labor, and the want of economy in the expenditure of that labor. The substitution of animal for manual labor wherever it can be advantageously introduced, adds greatly to the ease, despatch, and extent of a farmer's work; and it is matter of surprise that it should obtain so few *practical* advocates in our farming community; in theory it has numerous friends and supporters. How various are the enterprises to which Yankee ingenuity is directed in the construction of labor-saving machinery; and yet the farmer will look with satisfaction upon every invention that has no connection with his own vocation. The patent washing machines, and the shingle and saw and clapboard machines, readily attract his attention, and excite his admiration; but the drill-harrows, improved ploughs, threshing, and other implements, more closely connected with his own calling, excite scarce any notice except an incredulous smile or a direct sneer. Now these things ought not so to be. The farmer can more readily and cheaply increase his non-consuming laborers, than any other craftsman in the community; and it only needs a little forethought and consideration, and determination to "go ahead," to break from the shackles of that ironsided old despot,—early prejudice. In other States, the grandsire's bag and stone, are giving way to the crank and wheel of the man of to-day, and until we follow such leaders, our labor will be drudgery and our farms a moth. Mr. Bull and Johnny Crapeau have a better chance to hire hands on their farms than Uncle Sam; but the old gentleman has a longer head, and more ingenuity among his tenants, and he must make up by head what he lacketh in hand.

There are, no doubt, many labor-saving contrivances that possess so many conveniences in theory, that they are exceedingly inconvenient in

practice; but an intelligent, discriminating man will readily separate the simple, well contrived, well adapted instrument, which shows its object at a glance, from the complicated, counteracting contrivance of the muddy-headed schemer.

The Cultivator, for instance, with a horse, man, and boy, will hoe more ground in one day, than ten men with hard labor will hoe without it. The roller, with a pair of oxen or horses, will smooth more ground, and drive more stone out of reach of the scythe, than five times that amount of cost, in the shape of manual labor. A man or boy with a drill machine, will sow more turnip seed in three hours, than two men could sow in two days; and it shall scarcely be labor to him, while the backs of the men shall be as crooked as the furrows they sow.

No men who has a hill-side to plough, will pretend to turn his furrows up hill if he wishes to make "good work." He must either plough up and down hill and from very superior water courses by which his manures may run off, or he must "carry his furrows," and lose half his time and labor: let him put on a side-hill plough, and he will do in one day what it would require two days to effect with a common plough. Now there are few, comparatively none of these implements in use in this vicinity, and the instances above cited, show conclusively the great lack of Yankee inquisitiveness which prevails here, and which our meagre show of farming tools so strikingly exhibits."

GYPSUM.

Sulphate of lime, or common plaster of Paris, is found in a great variety of forms. It is either in regular crystals, in which form it is sometimes called selenite, or in large crystalline plates and masses, which are perfectly transparent and as pure as the finest plate-glass; or it occurs in fascicular or radiated masses, which are also crystallized; it is sometimes found in snow-white, scaly flakes, like foam or snow; it is sometimes semi-transparent, like horn; and, lastly, it is met with most commonly in large, fine or coarse-grained compact masses, forming rocks, and constituting large and extensive strata. In this form, it exhibits a great variety of colors—white, red, brown, blueish, white, &c. The variety of gypsum last described, constitutes all the hills and beds of this mineral, which are so frequent among secondary rocks, and in what are called the *salt and coal formations*. It occurs rarely, if ever among the primitive rocks, and not often among those of the transition class. It is always found associated with the rock salt, whereupon salt-springs are found. It contains but few vegetable or animal remains; those that occur, are chiefly bones of quadrupeds, amphibia, fresh-water shells, and vegetable remains. Caves are of frequent occurrence in gypsum.—The purer semi-transparent specimens of gypsum are used for ornamental works, as vases, urns, &c., and for statuary; for which purposes its softness makes it very useful and easy to work, but this also renders it difficult to polish. In this last form, it is the alabaster of the arts. It constitutes the material used in making the fine plastering for the internal finishing of costly edifices, and gives the walls a most beautiful whiteness. It is also used, after being burned, for the composition of stucco-work of all sorts.

But the great and important use of gypsum, or plaster, as it is usually called, is for manuring grass and grain lands; in which cases it is truly invaluable. And it is inconceivable how great an addition of grass will be obtained, by the sprinkling a peck of ground plaster upon the acre of land.

It is certainly the cheapest and best manure for grass and grain. It is found in all the countries of Europe, and occurs in very extensive deposits in New York, and in the Western States, in all which great quantities are dug and sold for the uses above described.—*Encyc. Amer.*

WHEAT FLOUR.—According to Prof. Thompson, of Edinburg, one pound of good wheat meal contains ten ounces of farina or starch, three ounces of bran, six drachms of gluten, and two drachms of sugar; and it is because wheat contains such portion of these substances, that it makes the very best loaf bread. The farina or starch is the principal nourishing property; the saccharine matter or sugar is also highly nutrient; but in the process of making loaf bread, it serves mainly, by its vinous fermentation, to produce the gas or air by which the dough is raised and the bread made light. The gluten is likewise a very nutrient property, but in loaf bread, it principally serves, by its cohesiveness, like gum elastic, to prevent the gas or air formed by the fermentation of the sugar, from escaping or passing off; and the gas being thus retained, inflates or puffs up the dough, and makes it porous and light. The bran with its mucilaginous and other properties, not only adds to the nutritiousness of the bread, but eminently serves to increase its digestibility, and to invigorate the digestive organs, and preserve the general integrative of their functions.—*Treatise of Bread Making.*

YEAST.—Good housewives, who take pride in setting sweet and light bread before their families, feel vexed at nothing more than bad yeast. And they are some times put to a great deal of trouble in procuring a good article. The following is said to be a good receipt for making it: Boil one pound of good flour and a quarter of a pound of brown sugar, and a little salt, in two gallons of water for an hour. When milk warm, bottle it and cork it close and it will be fit for use in 24 hours. One pint of the yeast will make 18 lbs. of bread.

FOOD FOR COWS.—M. Chabert, the director of the veterinary school of Alford, England, had a number of cows which yielded twelve gallons of milk every day. In his publication on the subject, he observes that cows fed in the winter on dry substances give less milk than those which are kept on a green diet, and also that their milk loses much of its quality. He published the following receipt, by the use of which his cows afford him an equal quantity and quality of milk during the winter as during the summer:—Take a bushel of potatoes, break them whilst raw, place them in a barrel standing up, putting in successively a layer of bran, and a small quantity of yeast in the middle of the mass, which is to be left thus to ferment during a whole week, and when the vinous taste has pervaded the whole mixture, it is then given to the cows, who eat it greedily.

IMPORTANT DISCOVERY.

Farewell to Wood and Coal! Mr. Jas. Cook, [a very appropriate name] manager of the Gas Works, at Paisley, Scotland, has discovered that Gas may be substituted for coals as fuel in warming houses, cooking operations, &c. The principle is very simple, consisting only in the mixture of gas with five or six times its bulk of atmospheric air, and the burning of the mixture through wire gauze. Supposing then the fire is wanted near the ordinary position of the grate, a gas pipe is laid to the spot, and the jet is fixed pointing upwards, so as to be about four inches from the floor or hearth stone. This jet is surrounded with a sheet iron pipe or cylinder, of a diameter from 3½ to 7 inches, according to the quantity of fire wanted, and of the height required, say from one to three feet, and the top of the cylinder is covered with a piece of fine wire gauze, kept in its place by a small iron hoop, circumscribing the cylinder in the same way as the hair cloth is secured on the common sieve.

The atmospheric air is supplied by having the bottom of the above cylinder raised on supports a few inches above the floor, and the gas is thus so regulated by dampers, as to obtain exactly the quantity found best. An iron plate for cooking is fixed a few inches over the gauze, and thus these fixtures may carry on the cooking operations, while they serve as mantle piece ornaments in the drawing room, bed chamber, &c.

A perforated piece of cast iron may be laid on the top of the wire gauze, for the purpose of raising the flame a little above it, and of thus rendering it more durable.

We need scarcely add, that any number of these fire places can be fitted up in a kitchen range, so that if room permit, a dozen or a score of pots may be boiling, each on its own fire, while to make one boil fiercely, and another to simmer slowly, no labor with poker and tongs is required; all that is necessary is a small touch of the stop cock, by which every fire in the range may be made to burn with different degrees of intensity.

One jet will not only do the cooking for a small family, but heat an ordinary sized room. Kindling, wood, puffing, bellows, blowing, cinders, ashes, dust, &c., so annoying, expensive, and time consuming, are thus happily dispensed with. A person in kindling a fire has only to turn the stop cock, apply a lucifer or other match, and his fire in a second is in readiness for boiling a kettle, or frying a beef-steak, either of which it will do in a very few minutes.

Mr. Cook, who has done more than any other person in Scotland to improve gas illumination, has no intention of taking out a patent, and what is a miracle in these times, has generously communicated the above invaluable discovery for the benefit of the world.

MISERIES OF INDOLENCE.

None so little enjoy life, and are such burdens to themselves, as those who have nothing to do—

“A want of occupation is not rest—
A mind quite vacant is a mind distress’d.”

Such a man is not of God’s order; and opposing his obvious design in the faculties he has given him, and the condition in which he has placed

him. Nothing, therefore, is promised in the scriptures to the indolent. Take the indolent, with regard to exertion. What indecision! What delay! What reluctance! What apprehension! The slothful man says, “there is a lion without; I shall be slain in the streets.” “The way of the slothful man is as a hedge of thorns: but the way of the righteous is made plain.” Take him with regard to health—What sluggishness of circulation! What depression of spirits! what dullness of appetite? what enervation of frame! Take him with regard to temper and enjoyment—who is pettish and fretful? who feels wanton and childish cravings? who is too soft to bear any of the hardships of life? Who broods over every little vexation and inconvenience? Who not increases real, but conjures up imaginary evils, and gets no sympathy from any one in either? Who feels time wearisome and irksome? Who is devoured by ennui and spleen? Who oppresses others with their company, and censorious talk? The active only have the true relish of life. He who knows not what it is to labor, knows not what it is to enjoy. Recreation is only valuable as it unbends us; the idle know nothing of it. It is exertion that renders rest delightful, and sleep sweet and undisturbed. That the happiness of life depends on the regular prosecution of some laudable purpose or lawful calling, which engages, helps and enlivens all our powers, let those bear witness, who, after spending years in active usefulness, retire to *enjoy themselves*. Prayer should be always offered up for their servants and wives, and for themselves too. They are a burden to themselves.—*Rev. W. Jay.*

The “Farmer and Gardener” of the past week has some very judicious editorial remarks on the subject of Agricultural Schools and Agricultural Societies. The practical effects likely to attend the establishment of both are of the best description, and well worthy of being sought after. Agricultural Schools would afford the best facilities of farming as part of education, and Agricultural Societies would hold out the greatest inducements to superior excellence in the competition which they would create, and the honorable rewards offered for superior excellence. Let us talk as we may about Commerce and Manufactures, both of which are entitled to high appreciation, Agriculture is after all the most solid basis on which to rest a nation’s permanent prosperity. The channels of trade may change, and markets for the disposal of manufactured articles may fail, but the nation, the wealth of which consists in the products of the soil, can never be any thing but independent. Great as are, confessedly, the charms of mercantile enterprise, and interesting as must be the processes by which crude material is fitted for the use of man, there is a simple beauty and unadorned grandeur in the life of the Agriculturist that wins us by its genuine worth, and makes us love it for itself alone. Free from unnatural excitement and breathing the pure air of heaven, the farmer placing his reliance on Providence and the strength of his arms, looks at a distance, unconcerned, upon the hurly burly of the world, and pities whilst he beholds such of his fellow-beings as may be struggling amidst its troubles. It is the most independent pursuit a man can follow, and

weak indeed must those be who would despise it for its alleged monotony, or not seek the freedom from care which it bestows.—*Baltimore American.*

CURE FOR RHEUMATISM—Dissolve half an ounce of ssliptre in a pint of brandy, and take a table spoonful every day. It is said, by those who have tried the experiment, to be a most excellent antidote for that double twisting, painful complaint.—*Boston Post.*

NILES’ REGISTER.

In reply to daily inquiries from Members of Congress and others, it is deemed proper thus to state, that complete sets of NILES’ REGISTER, from its commencement in September, 1811, to the present period, can be obtained on application to Mr. PHILIP REIGART, the agent of the late Editor, in Baltimore, Maryland, or to the present Editor in Washington city, on the following terms, for cash only, payable on delivery, viz.

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The complete sets remaining on hand are quite limited; and, as the work cannot, as some suppose, be reprinted, unless at great expense, persons who wish to possess them should make early application.

AMERICAN FARMER.

A few complete sets for sale at this office.

GEESSE AND TURKEYS.

The subscriber has for sale a few pair of those beautiful white Turkeys, so highly esteemed for sporting gentlemen’s lawns. Also the large Westphalian Geese, from Richd. Barnet’s stock, BOTH PURE WHITE.
oc 17 5t

ROBERT SINCLAIR, sen.

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Notice of the stock of Flour—sets of volumes of the American Farmer for sale—do. Niles’ Register—silk culture—thoughts on the mulberry culture, by the editor—large hog—observations on the employment of salt as a manure, concluded—suggestions relative to planting out fruit trees—training vines—farming implements—gypsum—wheat Flour—yeast—food for cattle—gas used for cooking, &c.—miseries of indolence—agricultural schools—cure for rheumatism—advertisements, prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	70	72
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana — Alabama	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's.....	"		
SuperHow. st. from stores	"	8 00	8 25
" wagon price,	"	7 75	8 00
City Mills, super.....	"	8 50	8 75
" extra	"	8 75	9 25
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhd.	hhd.	21 00	
do. in bbls.	bbl.	4 25	
GRASS SEEDS, wholes. red Clover,	bushel.	5 25	5 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.		7 50
Slaughtered,.....	"	6 25	7 00
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	4 00	4 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	95
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100 lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 80	1 85
Red, best.....	"	1 65	1 70
Maryland inferior	"	1 50	1 55
WHISKEY, 1st pf. in bbls.....	gallon.	35	
" in hhd.....	"	34	
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,.....	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms

EDWARD P. ROBERTS.

Baltimore Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,.... do.....	"	11	
Middlings,.... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"		2 37
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ———— No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	Farmers Bank of Virgi. 1½al½
Branch at Baltimore,....do	Bank of Virginia,..... do
Other Branches,.....do	Branch at Fredericksburg do
MARYLAND.	
Banks in Baltimore,....par	Petersburg,..... 1½al½
Hagerstown,.....½a	Norfolk,..... 1½al½
Frederick,.....do	Winchester,..... 1
Westminster,.....do	Lynchburg,..... 1½al½
Farmers' Bank of Mary'd, do	Danville,..... 10
Do. payable at Easton,....do	Bank of the Valley, .. 1
Salisbury,.... 1 per ct. dis.	Branch at Romney, ... do
Cumberland,..... par	Do. Charlestown, do
Millington,.....do	Do. Leesburg,.... 1½al½
DISTRICT.	
Washington, } Banks, ½p.c.	Wheeling Banks,.... 3a½
Georgetown, } Banks, ½p.c.	Ohio Banks, generally. 6a7
Alexandria, } Banks, ½p.c.	New Jersey Banks gen. 5
PENNSYLVANIA.	
Philadelphia,.....par	New York City,..... par
Chambersburg,.....½	New York State,.... 3a4
Gettysburg,.....do	Massachusetts,..... 3a3½
Pittsburg,..... 3½	Connecticut,..... 3a3½
York,..... ½	New Hampshire,.... 3a3½
Other Pennsylvania Bks. 2	Maine,..... 3a3½
Delaware [under \$5].... 4	Rhode Island,.... 3a3½
Do. [over 5]..... 1½	North Carolina,.... 5
Michigan Banks,.....10	South Carolina,.... 6a7
Canadian do.....10	Georgia,..... do
	New Orleans,..... 12

TRY THE NEW ESTABLISHMENT.

NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hills. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch.

Also, Cline's combined Plough

J. T. DURDING.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address s 29 EDWD. P. ROBERTS, Baltimore, Md.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & Co.,
Light, near Pratt-street, Balt.

FARMERS' REPOSITORY,
PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry. Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultiva- tors	Threshing Machines, witty or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	English Corn Hoes
Superior American made Castee Hoes, with handles	Liberal discount made to those who purchase to sell again.
Wheat FANS, of various sizes	All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.
Mattocks, Picks and Grub- bing Hoes	Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.
Corn Shellers	Jy 4 J. S. EASTMAN.

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with large smooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardihood, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozeltiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy
25,000 Florence Mulberry, leaves nearly entire
30,000 white Mulberry, 1 to 2 years old
65 lbs. white Italian Mulberry Seed
750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 40.

BALTIMORE, MD. JANUARY 30, 1838.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: JANUARY 30, 1838.

TO OUR SUBSCRIBERS.

An old friend and subscriber, who was recently on a visit to western Pennsylvania, of his own volition, was so kind as to procure for us *five new subscribers*. Such an earnest of his kind feelings towards us personally, and in the prosperity of our establishment, did not fail to impress us with the deepest emotions of gratitude; and while we tender him our thanks, we are certain the consciousness of having done an unsolicited act of generosity, will be a reward as priceless to him as it was flattering to us.

This, with many similar favors received from others, emboldens us to respectfully ask each of our subscribers, to interest himself so far as to procure among his neighbours, *one additional name* to our list. As the accomplishment of this object will impose none other, as we trust, than a pleasing labor up on any, we shall fondly look forward to the realization of our hopes.

In preferring this request, we are influenced as much by a desire to promote the cause of agriculture, as by motives of personal interest; and judging the feelings of others by our own, we indulge the belief that the *will* will not be wanting on the part of our subscribers to forward our views; but that emulating the good example set them by our valued Pennsylvania friend, and others, they will give us a solid demonstration of their desire to advance the farming interests.—Should they fulfil our expectations, let us assure them, in the language of *Old Cozey*, that it would make us feel "*comfortable*," and place us in that position above all others' the most propitious to the exercise of the energies of the mind.

ITALIAN AND SIBERIAN SPRING WHEAT.

We published in our paper of the 16th instant, a communication from Dr. Goodsell, of Utica, New York, comparing the relative virtues of these grains, and decrying those of the former in

no measured terms. Desiring to exercise the strictest impartiality, and at the same time to lay every thing touching agricultural subjects before our readers which in the least interests them, we have published in this day's paper two letters in reply, from Mr. Jay Hathaway, the gentleman who introduced the Italian Spring Wheat into the culture of this country. Without making ourself at all a party to this controversy, we must express our regret that topics of the kind should be so conducted as to call forth any thing which can be tortured into motives of a sinister character. It is but natural that men should be partial to products of their own; self love incline us to the adoption of such opinion; but we can see no reason why one man who may be satisfied with his own commodity, should step out of his way to attack that belonging to his neighbor. We long since adopted the generous sentiment of My Uncle Toby, when he opened the window and permitted the troublesome fly to escape, and we think it would be well for the peace of the world, if others would imitate the example of that excellent philanthropist.

POTATOES.

We would call the attention of our eastern agricultural friends to the fact that several loads of *Mercers* and *Pink-eyes*, for seed, would find fair prices and ready sale in this market. Although the last year's crop of potatoes in this section was good, almost every farmer has a partiality for northern seed potatoes. The editors of papers to the eastward with which we exchange will please copy this paragraph.

VALUABLE SUGGESTION.

We are indebted to the Hon. Mr. Ellsworth, Commissioner of the Patent Office, for a copy of his very interesting Annual Report to Congress, and we are happy to perceive, on perusal of it, that it contains a most valuable recommendation in behalf of agriculture, to wit: to create in his department an agricultural bureau, in which valuable seeds and plants from abroad, through the agency of our Consuls and Naval officers, may be collected, preserved, and distributed throughout the country. As we shall give an extract embracing this part of his report in our next paper, we

shall content ourself at present by remarking, that the agricultural interests are greatly indebted to the zeal and intelligence of this patriotic gentleman, for the deep concern he takes in whatever relates to their interests.

AGRICULTURAL SOCIETIES.

The article under this head which we publish to-day, will be found as well suited to the condition of the agriculture of any other state as that in which it appeared first. We commend it to the perusal of our readers.

We are gratified to perceive by the proceedings of the Senate of Maryland, that a bill was reported on the 24th inst. to incorporate the Chester Silk Company of Kent county. The citizens of the eastern shore of this State are acting wisely in placing themselves early in a position to avail themselves of the culture—a culture which we trust will add many millions to the value of their productive labor in a few years. They have soils, climate and labor, indeed all the elements necessary to ensure a successful prosecution of the work, and from the bottom of our heart we wish them—God-speed.

Osage Orange—Or *Maclaura Auranta*.—M. Mathew Bonafous, Director of the Royal Garden of Botany and Agriculture at Turin, reports, that the leaves of this tree are a substitute for the Mulberry as food for Silk Worms. In the event of early frosts, cold or backward season, one tree, 12 or 15 feet high, will serve to feed, during the first and second stages, the worms produced by 2 or 3 ounces of eggs. It is common in several of our south-western States, where it rises to a height of 30 and 40 feet, with a stem 6 to 8 inches in diameter. It leaves early; its branches are thorny, and it will stand uninjured, a degree of cold that would destroy the foliage of the hardiest mulberry trees. The fruit is indifferent. The tree makes a good hedge, and should be cultivated by all our northern silk growers. It can be had of most of our nursery men, in this, and other large cities in the Union.—*New York Whig*.

Remarks by the editor of the Farmer and Gardener.

It is wonderful to see the avidity with which the American press seize upon foreign paragraphs to give eclat to discoveries in Europe, which properly belong to our own citizens. Many years since, our venerable fellow-citizen Gen. Thomas

Forman, of Cecil County of this State, fed the silk worm from the *Maclura* exclusively, and was so fortunate as to make as good cocoons as were ever raised from the mulberry. *His discovery* was published in the *American Farmer*, and as it had several subscribers among the *savans* of Paris, the probability is, that the usefulness of this tree in this respect derives its origin from this fact. At all events, Gen. *Forman* has the precedence of nearly a dozen years over the discovery of M. *Bonafous*. We mention this fact, in order that if any credit be due for the discovery, that it may accrue to its rightful owner, to whose patriotism and gallantry our country is greatly indebted during our revolutionary struggle.

But with respect to the *Maclura*, we suspect the thorns with which it is so plentifully armed, must ever prevent it from being extensively used as silk worm foliage, owing to the difficulty of plucking its leaves. In the incipient stage of feeding, it may, however, be found useful.

GLEANINGS.

Sainfoin.—We see it stated as an evidence of the efficacy of this grass, in the improvement of the soil, that in the counties of Norfolk and Suffolk, England, it is found that poor sandy soils, unfit for other culture, will in sainfoin, produce after the first year, about two tons of excellent hay, per acre, for several years.

Sea-weed.—For the improvement of all lands in the vicinity of tide-water, where it is washed ashore, this is not only an inexhaustible, but a most efficient source of improvement to the soil. In Europe, where it is more highly charged with saline matter than in most situations with us, its efficacy has been made most manifest, and especially on light sandy land. Any where, however, it would prove a salutary agent of melioration.

Management of sandy loams.—Mr. Duckett, of Surry, England, a most accomplished and successful farmer, ascribed the luxuriance of his crops to three principles, which he laid down for his guidance, and strictly adhered to, viz :

1. *Deep ploughing*, by means of which the roots of his plants were permitted to penetrate the earth to a depth where they found a uniform moisture, by which they were preserved in a healthy and flourishing condition, while those of his neighbors, who were *shallow* ploughers, in seasons of drought were miserably destroyed.

In Flanders, in the Pays de Waes, where the soil was originally a barren white sand, by a sure process has been brought to a state of fertility which entitles it to be called a fruitful loam. At first it was barely scratched, being ploughed not

more than three inches deep; it was subsequently gradually deepened, as it was enriched,—and it is now stated that this barren sand has been so fertilized that it bears to be trenched to the depth of 15 to 18 inches. This operation is performed every seven years.

Clay soils.—All clay soils intended for spring culture should be turned up in the fall to receive the benefit of the action of the winter's frost, which mellows and reduces it infinitely better than any treatment which man is susceptible of giving it. If very *tenacious*, its condition may be greatly improved, by simply adding sand to it, after the ploughing, and so harrowing it as thoroughly to mix the two together. Instances of the success of this practice are numerous in Europe, and are said to have been so decidedly striking as to excite surprise. In numerous cases the advantages have been equally great as if the clay had been heavily manured.

Reproduction of fruit.—It is said that apples, pears, peaches, and various other fruits, will not produce their *like* from the *seed*. May not this arise from the fact of various kinds of each sort being planted together, the farina of the one is carried by the industrious bee to the other, and a hybrid produced? Would it not be worthy of a trial, to take for instance the stone of a peach remotely situated from any others of the species, and see whether it would not produce its like?—We believe it would, and if so, many diseases which proceed from grafting and budding might be avoided. This will, we are sure, be unpopular doctrine with many, but believing it correct, we hesitate not to advance it.

Implements of husbandry.—That farmer best consults his interest who is well provided with a sufficient number of good implements and tools, and that interest is further promoted by always keeping them in good order.

Milch Cows.—These animals should always, if possible, be kept where they can have free access to good water, whether ranging in the pasture, or confined in the barn-yard. From experience, we hesitate not to say that having water always at hand will make a difference of 25 per cent. in favor of their yield. In winter no man should pretend to keep a cow to the pail who does not provide her twice a day with either good rich slops, pumpkins or roots. How in the name of St. George can it be expected that a cow fed upon dry hay, fodder or tops, from November till April, can secrete any considerable quantity of milk; we know that there is a large quantity of nutritive matter in each of these kinds of proven-

der; but to replenish the udder, it is necessary that some such liquids, or succulent *pabulum* named, be daily given. No one should keep a cow to the pail who does not keep her well; humanity as well as true economy are both consulted in so doing.

Pastures.—Fields of clover, or other artificial grass, in which cattle are grazed, should be *small*; for it has been accurately ascertained that a much less number of acres will answer where they are so, than when they are always kept in one large field. The withdrawal of cattle from one field to another gives the grass a chance of growing, and that which has been trampled down, is thus enabled to assume its upright position. So far, however, as the saving and economy of green provender are concerned, *soiling* is incomparably the best plan of feeding. Two animals thus served can be fed from the product of one acre, whereas it requires one acre for each where they are permitted to graze on the field.

Draining.—The cultivator would find his profit in draining all his wet arable land; blind ditches, which are easily constructed, can be so arranged as not at all to interfere with the cultivation of the surface. Any common farm hand can be taught to make them in a few hours.

Marl.—The meliorating effect of marl has been known in Europe for a long time, and clay, stone and shell marl have been severally used with decided advantage, and as our tide-water regions are well supplied with each of those varieties of calcareous matter, we trust, as a *beginning* has been made, that wherever obtainable our farmers will freely use it. Of this they may be certain, that nothing like permanent improvement can be effected without the use of calcareous manure of some kind. With the aid of lime, or marl in some one of its forms, with the addition of grass-leys or green crops of some kind turned in, almost any soil may be pushed beyond even its primitive state of fertility.

Management of young cattle.—If you desire to have fine sized animals you must feed your calves well through the first winter: stretch their skins the first season, and growing will become a habit with them.

Accumulation of Manures.—The scrapings of the road, the lanes, leaves collected from the woods, weeds from fence corners and any where else, marsh mud, fresh or salt, and indeed, all vegetable or animal offal, if spread on the surface of your cow-yard, becomes in a few months as good manure as stable or cow-dung, for in addition to their own specific virtues, they sponge up and re-

tain great portions of rich liquids which would otherwise be lost. All cow-yards should be basin-like in form so as to prevent the escape of such liquids.

Cheap Compost.—The farmer who could spare a boy, and horse and cart for that purpose, would very much increase his stock of manure, if he would employ a cart the year round in gathering leaves, mould, weeds, and offals of all kinds, whether animal or vegetable, and as brought home spreading them on his dung heap. In the course of the season decomposition would take place, and in the spring of the year, all would form a bed of most excellent manure.

Dead Animals.—All animals which die on a farm should be covered with mould, or earth of any kind. Each dead horse or other animal thus treated, would throw out gas enough to impregnate five loads of earth with its fertilizing properties. To promote the speedy decomposition of animal bodies, a few bushels of lime should be thrown on them previously to being covered with earth or mould. After the decomposition of their flesh, the bones should be broken up and placed in the soil, where they prove both an efficient and lasting manure.

Irrigation.—The occasional letting water on meadows has a most wonderful effect in forwarding the growth of the grass, and thereby adding to the quantity of product.

Fencing.—Around each post there should be a small mound of earth formed so as to carry off the water. If this precaution were taken, posts would last as long again as they now do. Charring the end of the post which goes in the ground to at least 4 inches above the earth would greatly prolong its endurance.

[From the Cultivator.]

ITALIAN, vs. SIBERIAN WHEAT.

Judge Buel—Dear Sir,—I have seen the Cultivator for December, and notice a letter bearing Dr. Goodsell's signature, announcing his result in raising the Siberian wheat, and speaking in very disparaging terms of the Italian Spring wheat. I would not in an ordinary case trespass upon your time or columns, but feel that this attempt to put down the reputation of the Italian wheat, is unjust and unsustained by the experience of one in a thousand.

The public have a deep interest in this matter, and would doubtless have read his letter with satisfaction, were it not apparent that it was written with the view to establish a character for his favorite, at the expense of a favorite with them:—which of these varieties of Spring wheat shall best deserve the title of *best*, is yet to be proven, and that, not by an isolated case, but by general experience. It is a matter of moment, that the farming interest should not be put upon a wrong

track; but in this instance the doctor will have an 'up-hill business,' to convince them of the worthlessness of an article hitherto highly prosperous, an article that has been grown by more than 4000 of them the past season, in this county, and now actually furnishes excellent bread to more than half our whole population, and that too, in numerous cases, from impoverished lands, that would not yield a crop of oats. *This property alone* should give the Italian Spring wheat a name above every other, as no other in this country possesses one so valuable, except such as are in common; none other will grow well, and *produce a good crop upon a poor and worn out soil*. It has been grown for five seasons in this county, and has not failed in any; it rarely ever rusts, although winter wheat is ruined all around it; it has justly obtained an enviable popularity, as the doctor knows, as a sure crop, a good crop, and a larger;—it is the only article about which there was scarce a difference of opinion, until the letter in question—here it will effect little—abroad it may prevent a million from enjoying a certain good, which unlike the other, has not yet to *establish* a reputation. A "single swallow does not make summer"—nor the yield of a single field fix unqualified by a character. Many folks make wild guesses: the doctor says his Quaker friend "*thinks*" that he shall thresh nearly or quite 40 bushels Siberian from one bushel sown. Now this is great, if he has *guessed* truly; yet I can tell him of a man who says he sowed but half a bushel of Italian wheat on an acre of land, and that it yielded him 30 bushels after being threshed, and his account is not *guess* work.

Italian wheat is somewhat shrunk this season, but far less so than winter wheat, and it is only that which was blown down and lodged, so far as I have heard, that was much shrunk. The Siberian, it seems, shrinks also, by the account given in the letter; and like other wheats, is liable to "the thousand ills that wheat is heir to"—saving and excepting the *bug*, which looked so like a "bed bug," a harbinger of "weal or woe"—perhaps to no body. We shall look for the honest result next year.

J. H. of Oneida.

Extract from a letter from Mr. Jay Hathaway to his friend in Philadelphia, and communicated by the latter for publication in the Farmer and Gardener:

Dear John—Dr. Goodsell of Utica, has come out in the "Cultivator" (Judge Buel's paper,) strongly recommending his *Siberian Wheat*, and running down or trying to depreciate the Italian. His letter may possibly hurt the sale of the Italian where it has not been proven; but in this county the experience of our whole farming population is against him, and his letter here is quite harmless. Mr. Jos. Wright, a first rate farmer of this town, has sowed the Siberian three years in succession. His first crop was fair—his second was poor—and his third was miserable. I do not certainly know of any other person in this place who has raised it, and it must have very rich land, whereas the Italian does not require it, and will do *well* where the Siberian will not grow at all. The Italian is not liable to rust, let Good-

sell say what he will. He is jealous of the fame of the Italian.

Yours, &c.

J. HATHAWAY.

The above valuable wheat for seed, may be had (direct from Jay Hathaway, Rome, N. Y.) by applying to John L. Peirce, Bull's Head, North Third-street, Philadelphia, at \$4 50 per bushel, by the single barrel. A barrel contains about 3½ bushels.

Phila. Penn. Jan. 23, 1838.

[For the Farmer and Gardener.]

REMEDY PREVENTIVE OF THE CHERRY INSECT.

Having received the 'Farmer and Gardener' for some time through a friend, and obtained some valuable information from it, I am reminded that it is my duty to contribute my mite in the dissemination of knowledge that may be useful to others. In the county in which I reside, and in the adjoining counties, there is an insect (too well known to need description) that infests the 'black heart' cherry trees, to their certain and utter destruction. Having a few young and thrifty trees that had just began to bear, these insects took possession. My sons having got some insight in the smith trade, persuaded me to get them a set of tools. We built a shop in the midst of the young cherry trees, so that the smoke of the coal, (we used bituminous stone coal) circulated through the tops of the trees, and the second year there was not one of these insects to be seen on the trees, and they have continued thrifty, and leaf well.

A. WRIGHT.

Clearfield, Penn.

Progress of a pound of Cotton—The following progress of one pound weight of manufactured cotton, will show the importance of the cotton trade to Great Britain, in a very conspicuous manner:

"There was sent off for London, lately, from Paisley, a small piece of muslin, about one pound weight, the history of which is as follows:

"The wool came from the East Indies to London; from London it went into Lancashire, where it was manufactured into yarn; from Manchester it was sent to Paisley, where it was woven; it was sent to Ayrshire next, where it was tamboured; afterwards it was conveyed to Dumbarton, where it was hand-sewed, and again returned to Paisley, when it was sent to a distant part of the county of Renfrew, to be bleached, and was returned to Paisley, whence it was sent to Glasgow and was finished, and from Glasgow was sent per coach to London." It is difficult precisely to ascertain the time taken to bring this article to market, but it may be pretty near the truth to reckon it three years from the time it was packed in India, till in cloth it arrived in the merchant's warehouse in London, whither it must have been conveyed 5000 miles by sea, and 920 by land, and contributed to reward no less than 150 people, whose services were necessary to the carriage and manufacture of this small quantity of cotton, and by which the value has been advanced 2000 per cent. What is said of this one piece, is descriptive of no inconsiderable part of the trade."

MR. S. CANBY'S FARM.

The *Village Record*, in publishing the annexed account of Mr. Canby's farm, speaks of him as "one of the most distinguished and liberal agriculturists in the state of Delaware," and remarks that "Mr. C. is known in Chester county, Pa. for his public spirit and intelligence." From an intimate personal knowledge of this gentleman, we respond most cordially to the commendation so justly bestowed upon him by the editor of the Record. It would be well for our common country and its institutions, if the sons of our opulent citizens would follow the example set them by this gentleman. While at college he imbibed a love for agricultural pursuits, and on finishing his education, entered as a student to learn practical farming with one of the best farmers in our country residing in Chester county, Pa. In this situation he remained for three years, not merely as a looker on in Venice, but actively engaged in the toils of the field, indiscriminately wielding the plough, the hoe, the scythe—in fine, taking part in all the labor of the farm. It was here he acquired that practical knowledge, which, when added to his scientific attainments, has made him what he is—one of the best farmers in our country.

"We paid a visit, a few days since, to Woodside, the beautiful farm of Mr. Samuel Canby, about three miles from Wilmington, Delaware. Taking the improvements, the stock and the land together, this is undoubtedly the finest farm in the state. An elegant mansion, with handsomely embellished grounds, an extensive barn and outhouses so arranged as to enable every thing needful to be done with the smallest expenditure of labor, it is the *beau ideal* of all that is desirable, in a residence, and useful in the conduct and management of a farm. The land is in high order, and admirably calculated for grazing, both from its natural and improved qualities, and from a beautiful stream which flows through it and furnishes water to every field.

We observed a considerable number of western cattle preparing for the shambles. But we were particularly attracted by some fine specimens of Durhams, of which Mr. Canby has twelve thoroughbred. After hearing from him, the results of his experience as a breeder of foreign cattle we are surprised that our farmers universally do not turn their attention to the superior qualities of the Durham over the native breed. He has none but the Durham breed, and is so satisfied of its superiority over any other, that his greatest care is to prevent a mixture. After a satisfactory trial of some years he finds that the Durham is preferable to any other, both for the quantity and quality of milk; that they attain weight earlier than any other breed, and are therefore more valuable for the butcher;—that they are excellent for draft—a pair of his young oxen took the premium last fall, at the cattle show in Wilmington.

We are gratified too to say, as a proof that our farmers are beginning to be sensible of the value of these cattle, that he finds sale for them as fast as he can raise them. He has a calf eight weeks old out of his thoroughbred cow, Countess, for which he refused one hundred dollars. Among them, the following particularly attracted our attention. They are beautiful cattle, possessing all the points which distinguish the breed, short horns, small head, straight back, fine limbs, glossy coats: Uncas, full blood Durham bull, three years old, bred by himself.

Duchess, full blood Durham cow, bred by Samuel Scotson, esq. of Foxheath Park, England, imported in 1833. She is seven years old, weighs 1600 pounds, and milks 35 quarts a day. This cow won two premiums in England.

Blossom, another full bred Durham cow, out of a celebrated cow, bred by himself. She is two years old, and is very large of her age.

Farmers are slower in adopting improvements than any other class of the community. This arises, we suppose, from their isolated mode of living. Merchants, manufacturers and mechanics, from more intimate associations with each other, are more in the way of receiving and discussing new impressions, and therefore more readily adopt them. Agricultural societies are exceedingly useful in this respect—that they bring our farmers more together to consult upon their particular pursuits, and thus prepare the way to overcome the old habits and prejudices, and adopt the improvements suggested by knowledge and experience. The general introduction of the superior breeds of foreign cattle will be one of the best fruits of the Agricultural Association of New Castle county.—*Delaware State Journal*.

(From the Ohio Farmer.)

AGRICULTURAL SOCIETIES.

We consider it of great importance to the complete development of our agricultural interests, that there should be a perfect organization of societies in the several counties of the state. We know of no better way to effect this than by recommending the establishment of a State Agricultural Society. This would be constituted of citizens from different counties, and it is to be supposed many may be found who feel much interest in the cause. It should be made the object of this society to promote a spirit of inquiry among the people, and to diffuse among them the means of acquiring agricultural knowledge. To this society those of the several counties should be auxiliary. To it they should regularly make a report of their proceedings, and keep it informed of all those facts which come within their observation, which may in any way tend to aid the general spread of valuable information. We are satisfied that the establishment of a State Society on these principles, would do much to effect good. It would at least possess means of diffusing information to all parts of the state. It could collect and embody many facts of interest which are now either entirely lost to the public, or are known only in limited neighborhoods. It would be as the head to the several members of the body—informing the one society of the acts and proceedings of another, and tending to harmonize the proceedings of all. It is well known that in some por-

tions of this State valuable crops are raised which perhaps receive but little attention in others, while in these portions other crops are raised of corresponding value, little known in the first. The same thing is true of domestic animals. In one section we find valuable breeds of cattle or of swine; in the other very inferior breeds.

We are to presume that it will only become necessary for the farmers in any portion of the state to know that there are more productive varieties of grain, or grasses and crops, or more valuable kinds of stock than they already possess, to induce in their minds an anxiety to possess them—This anxiety being once aroused, and the means of obtaining them being pointed out, it is but fair to presume that they will be obtained. Added to this, the distribution of premiums will excite a generous emulation among our farmers to excel. It is hardly necessary to say that the publicity which would follow any act of superiority, would be a still greater incentive.

But we trust it is unnecessary to show reasons why the establishment of a State Society, and of auxiliary societies in the several counties, would be beneficial. Those states which have adopted a system similar to the one proposed, are far in advance of the others in the general spread of agricultural science; and wherever this science most prevails, there are to be found the best farmers and the most moral people. Take Massachusetts as an instance. Her Legislature was early impressed with the importance of the agricultural interest; and has labored long and effectually to promote it. With a soil comparatively barren, and an inhospitable climate, she possesses farmers of enterprise and of wealth—men of the highest intellectual attainments, and of the greatest moral worth. These men have been incited to attain their eminence by the influence of agricultural societies, fostered and protected by her legislature. Her rocky hills and mossy vallies glitter with waving crops and lowing herds—her deserts have been made to bloom with the rose and the vine, until she now stands forth a beautiful example for those states which possess a more fertile soil and a more genial climate. To her we are indebted for the first example of a geological survey of her territory. She has now set the bright example of an agricultural survey. The gentleman who has charge of this survey intends to visit every farm in the State. Who can estimate the advantages which will result to that state from a survey thus made by a scientific man and practical farmer? We attribute much of the advancement of that state to the early influence of agricultural societies. For another example let us look at New York. Although the agricultural interest has been less immediately fostered by the Legislature there, we find instances of great superiority in agriculture, and of great improvements caused by the diffusion of agricultural science. There we find a State society with county societies—some auxiliary and others independent. That this Society has done much good it is quite needless to assert, for we have only to point to the agricultural periodical established by them, to show that they have done nobly. Her greatest and wisest men have aided in the cause, and she stands proudly eminent for her superiority.

It would perhaps be better that we should point out the manner of introducing these improvements

among ourselves, than further to multiply proofs of their utility. It is our opinion that this subject is worthy of, and entitled to the consideration of our Legislature. It is true that we have on our statute book, a law for organizing agricultural societies—that by the terms of this law societies organized within a certain time, are entitled to certain advantages. Those counties where the intelligence of the people induced them to accept the proffered bounties of this law, are now in a measure reaping the advantages of it,—while those who are blind to their true interests, are excluded by their want of attention. It is the part of a good government to watch assiduously the interests of its citizens, and not only to proffer advantages to them, but to keep active in their minds a knowledge of these advantages, and to press their acceptance. It is their duty kindly and generously to renew their efforts until they are accepted and enjoyed. We therefore wish that those intrusted with this interest in our legislative halls, would examine into this matter, and so alter and amend the law that all its former beneficial provisions may be revived, and that a new and more important feature may be added to the system. We wish that they would suggest to their brother members the importance of an act authorising the creation of a State Society, to which county societies might be made auxiliary; or that they would at least recommend the measure to the people by a careful report. If, however, we are to anticipate nothing of this kind, it is to be hoped that the friends of agriculture throughout the State, will unite and form unaided, an association having for its object the collection of interesting information, and the diffusion of agricultural science.

[From the Farmers' Cabinet.]

Remarks on the influence of age upon Grafts and Cuttings and other vegetables which are cultivated otherwise than from seed—Depredators, &c.

The correct system of advancing useful knowledge, not only in relation to agriculture, but upon all subjects, is to proceed from the *known* to the *unknown*, and as the *Cabinet* is intended to be a vehicle to convey information from one section of country to another, which will either directly or indirectly augment the number of *established facts* and diminish the number of *conjectures* upon the subject of agriculture in all of its departments, a *subject* wherein the whole human race is interested; I shall make a few remarks relating to the natural decay of vegetables, and upon the subject of the rotation of crops, showing the *supposed* influence which one crop has upon the growth of the immediate succeeding one, and also the influence upon the depredators which may have come into existence during that period.

If the theory here advanced be incorrect, no one will be more pleased than myself to see the error pointed out; and if correct, I should be equally pleased to see the subject extended and illustrated by a statement of experiments from persons better qualified for the task. All are *interested* in each advancing step toward making *agriculture* a complete *science*.

1st. Vegetables are limited in the duration of life, and a graft or slip partakes of the natural de-

cay arising from age in the parent tree; the same remark as regards depreciation will apply to other vegetables which are cultivated both from the seed and otherwise, such as the potato, onion, &c.; therefore, grafts, slips, (or cuttings,) potatoes, onions, and other vegetables which are thus cultivated, should be extended from the best kinds which have passed through but a small portion of the supposed natural duration of life.

2nd. A leading object in all agricultural and horticultural societies should be to cultivate annually from seeds of the best quality (the first matured large seeds) all the variety of vegetable plants beneficial to man, and in a quantity that will reasonably ensure a new kind sufficiently valuable to be extended afterwards at pleasure. A memorandum should be faithfully kept showing the length of time which may have passed since each variety had been continued from the seed. In this way no one would be deceived, and the improved kind would probably command a price ten times greater than the expense of producing it.

3rd. The roots of a crop while undergoing decomposition in the earth furnishes food for the succeeding crop, and several succeeding years serves to increase certain kinds of depredators, such as flies, worms, &c., but when vegetables of a different character, alternate with each other, the depredators themselves die for want of support, and furnish food for vegetables; therefore plants of a similar character should never follow each other without a sufficient interval to cause the death of such depredators as feed upon them, unless these depredators can be destroyed by other means.

The other means which are naturally presented to the mind, when investigating the subject, are temperature and such substances as will destroy animal life without injury to vegetables; thus we have a variety of means to increase the fertility of soil by such vegetables as draw nourishment from the atmosphere, the roots of which afterwards become decomposed in the earth, and furnish food for the succeeding crop, such as the red clover, beets, turnips, carrots, and other plants with tap-roots and broad leaves; also, the onion, potato, and artichoke, the cabbage, pumpkin, melon, squash, bean, pea, &c., may also, to a considerable extent, combine these properties when the fruit, leaf, stalk, and root are all returned to the earth decomposed.

We also have a variety of means to destroy depredators and convert them into food for vegetables, such as the frost of winter upon the embryo of the cut-worm, as exemplified by the benefit arising from autumn and winter ploughing. The destruction of the peach-worm by warm water, and a variety of other cases.

In substances of the ordinary temperature, either the plant or depredator, and which do not injure vegetables, but destroy these pests, we have lime in a caustic state (unslacked lime,) ley of wood ashes, (potash,) tobacco in the leaf or powder, (snuff) or combined with water or other substance, and a variety of other articles of a similar character.

For the above, and many other reasons, I draw the following conclusions.

1st. Land for Indian corn should be ploughed in the autumn or winter preceding the planting.

2nd. A crop of Indian corn, barley, oats, wheat, or other plants with a fibrous root should not be cultivated two seasons in succession upon the same land without an intervening crop of a different character. I shall probably in another communication make some farther remarks upon the subject.

P.

Chester County, Pa. 30th Dec. 1837.

[From the Farmers' Cabinet.]
ON POPULATION AND CULTIVATION.

The progress of agricultural science during the last quarter of a century, has occasioned many estimates of the amount of population a given quantity of land may be made capable of supporting.

With this question is intimately connected that of the area or number of square miles of cultivable soil a country may possess.

Thus, an approximation may be made to the prospective population, production, power, and wealth of any country. The tendency of the human mind to dive into futurity, may be satiated by a fair calculation. The seats of Empire in after ages, may be indicated, more extensive than those of Alexander, Augustus or Tamerlane. Facilities of communication may be so extended, that a continent can be advantageously united in one vast Republic.

Already have the predictions of European statesmen, that our Federal Republic would fall in pieces by reason of its extent, and, the inconvenience of communication, been falsified by the Steam-Boat and Locomotive Engine.

The dream of the Poet—

"Westward the march of Empire takes its way," is realized.

Maclaren, a British writer of authority, has recorded the opinion, that this Continent, though less than half the size of the old, contains an equal quantity of useful soil, and a much more than equal quantity of productive power. He estimates that in America there are upwards of four millions of square miles of land, each capable of supporting two hundred persons, and nearly six millions of square miles, each capable of supporting four hundred and ninety persons.

The above estimate of the capability of America, to support a dense population, would give us ten millions of square miles of fertile soil, averaging three hundred and seventy-four persons to the square mile, and an aggregate of three thousand seven hundred and forty millions of inhabitants. The existing population of America is estimated at thirty-seven millions, which, if we adopt these data, would give three and seven-tenths inhabitants to each square mile of productive soil.

The most improved and best cultivated portions of the earth, as Great Britain, Holland, and Belgium, average about two hundred inhabitants to the square mile of their whole area. Pennsylvania contains about thirty, and her best cultivated agricultural counties, as Montgomery, about one hundred.

In Great Britain only sixty-four thousand square miles, or one half the entire surface, has yet been brought under cultivation,—so that her present population is nearly four hundred inhabitants to every square mile of cultivated soil. Her political economists estimate that the land now in cul-

tivation could be made to produce sufficient bread, vegetables, and meat, for seventy millions of inhabitants, or nearly three times the existing number.

The elaborate report of the Secretary of the Treasury of the United States, of Dec. 5th, 1837, exhibits a view of the production, and consumption of wheat flour and meal, of great interest to the Farmer. He estimates our population at fifteen millions, and the consumption of each individual to average a pound of flour or meal per day. "At the price of 3 cents per lb, for wheat flour and only 1½ cents per pound for meal from the cheaper varieties of grain, which is not far from the average of 1834 and '35, the cost of bread alone (if only one half the population used wheat flour, and the other, materials less costly) would be about one hundred and twenty-four millions of dollars." This is exclusive of the "vast quantity of grain which is distilled, or employed in the arts, or consumed by domestic animals."

But at the increased cost of last year, estimated in the report at 80 per cent., the value of bread stuffs alone, consumed by our own population, would be about two hundred and twenty-four millions of dollars. The data furnished by the Secretary of the Treasury, while they show the enormous domestic consumption of bread stuffs, exhibit at the same time the comparative insignificance of the foreign markets, the exports to all of which during the most productive years have been but about fourteen millions of dollars.

Let the Agriculturist remember, 1st. That the increased consumption of grain has for several years more than equalled the augmented production. 2ndly. The abstraction of hands from rural labor for manufacturing and labor upon public improvements. 3dly. The shortness of the last crop, as compared with average seasons, in several important sections. 4thly. The fact that improvements in husbandry are necessarily adopted very gradually. These may be considered reasons sufficient to account not only for the present high price of produce, but a fair calculation may be predicated thereon, that there must be at least two consecutively productive seasons before prices can be reduced to a low standard.

This should operate as a stimulus to every man connected with the cultivation of the soil, by judicious experiments with the various descriptions of manures, and other methods of cultivation, to extract from the earth the full amount it is capable of producing. For even in this "Pennsylvania of ours," though pre-eminently a farming state, scientific agriculture has not progressed in a comparative ratio, to its importance.

But another duty would remain, namely; to communicate to others the information gained by judgment and skill. To effect this the Periodical Agricultural press of our country affords an excellent medium. The establishment of such papers indeed, constitute an important era in Agricultural history. For who can estimate the vast amount of every species of improvement in cultivation, the results of individual exertion for ages, that has been lost, for the want of convenient methods of communication.

Your Friend,

MORRIS LONGSTRETH.

Valley Green, 1st mo. 1st, 1838.

ON AGRICULTURE.

In this country no man needs to be idle: for its surface would afford agricultural employment for more than tenfold the number of its present inhabitants. Too many hands cannot be employed in this business. The learned callings may be crowded and trade overdone. When too great a number engage in it, they starve each other. But in a new, extensive and fertile country, every one who industriously and skilfully tills the ground, while he secures his own independence is adding to the public stock, and while he enjoys the fruits of his labor, he may have the satisfaction to reflect that fellow creatures even in distant climes are fed from the produce of his fields. If the farmer's income be less abundant than that of the merchant, it is much more certain. If greater bodily fatigue is attached to his employment, he has much less anxiety of mind. If he has not an equal access to the elegancies of life, he is better assured of its real necessities and comforts.

Every farmer that is not in debt, and has in himself the fee of his land, is a prince within his own domains; and, provided his farm produces a competent support, there is in his power as much independence as can fall to the lot of man. When a farmer plants or sows, he, as it were loans his property, and for seed that he puts into a well cultivated soil, he receives twenty-fold. This is an interest of two thousand per cent.; and at the same time such enormous interest is paid without impoverishing any one. In old countries, by the monopoly and entailments of land, all but a few are excluded from the privilege of being owners of the soil. Here it is happily different. Vast tracts of saleable lands lie uncultivated, which can hardly be settled within a whole century to come. The abundance and cheapness as well as the fertility of the American lands, together with the easy access to markets from extensive sea coasts, and from the number of our fine navigable rivers, which intersect the whole country, offer a decent competency and independence to millions of families in the industrious pursuits of husbandry.

(From the Maine Farmer.)

SIDE HILL PLOUGH.

Mr. Holmes :—I have for some time past felt desirous to call your attention and the attention of the agricultural community to the Side Hill Plough. There are several kinds of ploughs so called, but I mean that with a rolling share and mould board. You doubtless have seen them, and perhaps know much better how to estimate their value than I—but what I have seen of them and the use I have made, and the experience of others much better qualified to judge of their worth than I, have convinced me that they ought to take the place of all other ploughs, as possessing all the good properties of the best cast iron ploughs, to which is to be added those of turning the furrow to either the right hand or the left.

They are not patented. They are manufactured by Mr. Nourse, of Worcester, Mass., and were introduced into this town by Samuel Davis, Esq.

There are now in, and within 2 or 3 miles of this village, two dozen or more of them in actual use, and I believe every man who has tried them is entirely satisfied with them, and has either got-

ten one for his own use, or is determined to have one the first opportunity.

They are not only applicable to the side hill, but equally so to level grounds, entirely superceding the necessity of a central or dead furrow. I have had my ploughing done for two years past with this kind of plough, and I do not hesitate to say that the ploughing has been as well done as it could have been done with any other plough in use.

I held the plough one half day to break up land that had been mowed about five years. One yoke of oxen was all the team necessary. The work was done with ease to the cattle, and the man who owned the cattle and who drove them for me, has since purchased one of the ploughs for his own use.

One of our citizens contracted to build, and built a new road of about one mile on the shore of a pond where he was under the necessity of ploughing upon one side of the road altogether—he purchased one of these ploughs on purpose, and now says, he more than cleared the price of it in the time of his team and hands, which would otherwise have been spent in travelling without ploughing. Much more might be said in favor of these ploughs, but my only object is to call the attention of those farmers who are about purchasing ploughs to do their fall ploughing. To such I would say—don't purchase until you have seen and are satisfied. All that will be necessary to satisfy you will be to try, and I am certain you will buy.

They need no more recommendation in this vicinity in one or two more years.

Yours, very respectfully.

A FRIEND TO AGRICULTURE.

Mt. Vernon Village, Sept. 6 1837.

White Mulberry.—Experience and observation have demonstrated that the shade of Mulberry trees is not injurious to the growth of grass, grain, or any other vegetable. This is an important discovery, and argues powerfully in favor of the means of raising silk.

I would advise with humble deference, that every farmer procure mulberry seed from a nursery, transform all his fences into mulberry hedges, and plant standard mulberry trees along all those hedges, half a rod distant from each other. A farm of a hundred acres, fenced as above advised, would, in a few years, yield from the fences a crop worth several hundred dollars! These fences would be as cheap as any other the farmer could erect; would require no repairs, no renewal, so that all the produce arising from the leaves would be a clear profit. One hundred pounds of leaves would produce, in this country, one pound of reeled silk, if judiciously fed, worth from four to seven dollars, the price being governed by the good or bad reeling. A single tree, will produce from thirty to sixty pounds of leaves, depending on the growth of the tree, &c.—*Village Record*.

Silk Factory.—The building formerly occupied by Parker and Thomas at South street bridge, has been purchased by Messrs. T. & S. Whitmarsh, and having undergone a thorough repair, is now receiving machinery for the manufacture of silk goods. The machinery is to be propelled by a steam engine, which is now in operation.

Hampshire Republican.

SILK. The Committee of the Hampshire, Hampden, and Franklin County (Mass.) Agricultural Society, make the following statement:

It is ascertained that *raw silk* can be manufactured in the family at an expense of two dollars a pound, which, when manufactured, is worth from five to seven dollars a pound, according to the perfection of the reeling:—thus affording a clear profit of three to five dollars a pound.

The bounty offered by the commonwealth, which is one dollar for every ten pounds of cocoons raised in the State; and one dollar for every pound of silk reeled and thrown; and fifty cents a pound for every pound reeled without being thrown, will by an experienced hand, pay the expense of gathering the leaves, feeding the worms, and reeling the silk. This has been done by a member of the society the present year, who has reeled about twenty pounds.

Those who have tried the experiment, assure us that a clear profit of from \$100 to \$500 may be made from an acre of land, set out with Chinese Mulberry. The profit will, of course, depend on the silk of the cultivator, though the land may be of inferior quality.

Many may be apprehensive, that should people generally engage in the growing of silk at this rate, the market would soon be overstocked. But from an investigation made by the Hon. J. Q. Adams, Chairman of the committee of Congress on the cultivation of silk, he gives it as his opinion that with the increase of population, and the increasing demand for silk fabrics, there is no probability, with all the interest that can be excited, and all the attention that can be turned to this branch of manufactures, the market cannot more than be supplied for one hundred years to come.

VALUE OF THE WILLOW. The importance of the willow to man has been recognised from the earliest ages; and ropes and baskets made from willow twigs were probably among the very first of human manufactures, in countries where these trees abound. The Romans used their twigs for binding their vines and tying their reeds in bundles, and made all sorts of baskets of them. A crop of willows was considered so valuable in the time of Cato, that he ranks the salicium, or willow field, next in value to the vineyard and the garden. In France, the leaves, whether in a green or dried state, are considered the very best food for cows and goats, and horses, in some places, are fed entirely on them, from the end of August till November. Horses so fed, it is stated, will travel 20 leagues a day without being fatigued. In the north of Sweden and Norway, and in Lapland, the inner bark is kiln-dried and ground, for the purpose of mixing with oatmeal in years of scarcity. The bark of the willow, and also the leaves, are astringent; and the bark of most sorts may be employed in tanning.—*Arboretum Britannicum.*

FARMERS. Such times as these may have a salutary effect in teaching farmers the folly of making so many of their sons traders or professional men. The facility with which literary and scientific advantages can now be enjoyed, through the cheapness of books and other publications, with the improved condition of the schools, newspapers and other comforts and conveniences of

civilization, leave little excuse for those who thrust their sons amid the temptations of city life, rather than educate them suitably to sustain the character of enlightened American Agriculturalists—than whom Heaven never endowed a people with greater advantages.

Sun Flower Oil.—We have been presented by David W. Patterson, Esq., with a bottle of oil, which he had manufactured at one of the oil mills in this county, from the seed of the sun flower. It is of a clear and beautiful color, burns nearly equal to the best sperm oil, and emits neither smoke nor smell. The only defect, indeed, which we noticed, was a slight encrustation of the wick, in burning—a common thing with the sperm oil not of the best quality, and which very probably, might be remedied by a little experience in the manufacture.—*Staunton Va. Spectator.*

Extraordinary Product.—On eighteen square feet, less than half an acre of ground, Jacob Resor, Esq., at his residence, about seven miles below this city, on the river, raised this season, of the Isabella, Cape, and Catawba Grape, sufficient to make *six hundred and sixtyseven gallons of pure Wine*—besides a large quantity consumed in the family, and otherwise disposed of, estimated to be sufficient to have made the amount full 700 gallons. It is to be remarked that this is the first bearing season of the vines. The Isabella and the Cape yielded at the rate of fifteen hundred gallons to the acre!—the Catawba less productive, from the rot having destroyed many of the grapes. Mr. Resor values this crop of wine, at one thousand dollars—a pretty handsome remuneration for half an acre of ground and ten days labor.—*Cincinnati Post.*

Improvement of Cattle in our Country.—John Strader, jr. Esq. of Mansfield, weighed his short horned Durham bull *Snap*, on Monday the 8th inst. (the day that he was two years old), and he weighed 1600 pounds.—At the same time one of our ordinary fat bullocks of the usual breed weighed 1100 pounds. Mr. Strader has lately turned his attention to improving his stock, and has raised *Snap* from a calf, and has cows, now on hand that would do credit to the *Powellton* stock.—*New Jersey Belvidere Apollo.*

Grape Jelly.—We have examined a specimen of this exquisite article. It is made from the Isabella ripe grape, raised at Croton Vineyards; the object has been to preserve the flavor and virtues of the ripe fruit. In this, the preparation has met with the most perfect success. We recommend the jelly as delicious to the taste, and an excellent beverage to the sick.—*N. Y. Express.*

Exhausting and ameliorating Crops.—The causes which give to particular crops the character of being exhausting or ameliorating to the soil, depend either on their being allowed to mature their seed, on their peculiar mode of culture, which admits of the tillage of the ground during their growth, and on their yielding manure; wheat, barley, oats, and rye are consequently exhausting. Turnips, carrots, parsnips, beet, cabbage, and rape, if cultivated for their leaves, only, are ameliorating.

In the case of the turnip, the mode of cultivation, and the quantity and quality of manure it produces, combine with the other circumstance of its not being allowed to mature its seeds, to render it one of the most ameliorating of all crops; whereas, if allowed to run to seed, it becomes one of the most exhausting. Potatoes and beets, although allowed to mature their seeds, are considered among the ameliorating crops, because they admit of being cultivated at wide intervals, and permit the ground to be tilled completely during their growth; they also yield manure. Clovers, if used for herbage, or cut early for food, are ameliorating; if cultivated for their seeds, exhausting.

Quar. Jour. of Agricul.

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the *pioneer* in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

FARMERS' REPOSITORY,

PRATT STREET,

Between Charles & Hanover sts. Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities, and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now on hand, viz. his own Patented Cylindrical Straw Cutters, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators	Threshing Machines, with or without horse power
Superior Grain Cradles	F. H. Smith's Patent Lime Spreaders
Weldron Grain and Grass Scythes	A great variety of Ploughs of all sizes, with wrought and cast iron Shares
Farwell's Patent Double Back Grass Scythes and Snathes	Swingle Trees and Hames
Hay Forks and Rakes	Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice
Manure Forks, Shovels, &c.	Liberal discount made to those who purchase to sell again.
English Corn Hoes	
Superior American made Cast-steel Hoes, with handles	
Wheat FANS, of various sizes	
Mattocks, Picks and Grubbing Hoes	
Corn Shellers	

All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.

July 4

J. S. EASTMAN.

✂ The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	70	72
White.....		75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana—Alabama.....	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's.....	"		
SuperHow. st. from stores	"	7 87	8 25
" wagon price,.....	"	7 50	7 75
City Mills, super.....	"	8 00	8 25
" extra.....	"	8 25	8 50
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhds.	hhd.	20 50	
do. in bbls.	bbl.	4 12	
GRASS SEEDS, wholes. red Clover,	bushel.	5 25	5 50
Kentucky blue.....	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.		7 50
Slaughtered,.....	"	6 25	7 00
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LINE,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	4 00	4 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	95
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 70	1 80
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	35	
" in hhds.....	"	34	
" wagon price,.....	bbls		30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms

EDWARD P. ROBERTS.

Baltimore Md.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,..... do.....	"	11	
Middlings,..... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,.....	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ————No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	Farmers Bank of Virgi. 1½a1½
Branch at Baltimore,.....	do	Bank of Virginia,..... do
Other Branches,.....	do	Branch at Fredericksburg 1½
MARYLAND.		Petersburg,..... 1½a1½
Banks in Baltimore,.....	par	Norfolk,..... 1½a1½
Hagerstown,.....	¾a	Winchester,..... 1
Frederick,.....	do	Lynchburg,..... 1½a1½
Westminster,.....	do	Danville,..... do
Farmers' Bank of Mary'd, do		Bank of the Valley,..... 1
Do. payable at Easton,.....	do	Branch at Romney,..... 1
Salisbury,..... 1 per ct. dis.		Do. Charlestown,..... 1
Cumberland,.....	par	Do. Leesburg,..... 1½a1½
Millington,.....	do	Wheeling Banks,..... 3a3½
DISTRICT.		Ohio Banks, generally 6a7
Washington,.....		New Jersey Banks gen. 5
Georgetown,.....	Banks, ½p.c.	New York City,..... par
Alexandria,.....		New York State,..... 3a4
PENNSYLVANIA.		Massachusetts,..... 3a3½
Philadelphia,.....	par	Connecticut,..... 3a3½
Chambersburg,.....	½	New Hampshire,..... 3a3½
Gettysburg,.....	do	Maine,..... 3a3½
Pittsburg,.....	3½	Rhode Island,..... 3a3½
York,.....	½	North Carolina,..... 5
Other Pennsylvania Bks. 2		South Carolina,..... 6a7
Delaware [under \$5].... 4		Georgia,..... do
Do. [over 5]..... 1½		New Orleans,..... 12
Michigan Banks,..... 10		
Canadian do..... 10		

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

AMERICAN FARMER.

A few complete sets for sale at this office.

CONTENTS OF THIS NUMBER.

Hint to subscribers—notice of the Italian and Siberian spring wheat—seed potatoes—suggestion of an agricultural bureau in the patent office—notice of an article on agricultural societies—Chester silk company—Osage Orange—Gleanings—Italian, vs. Siberian wheat—remedy for the diseases of the cherry tree—progress of a pound of cotton—Mr. Canby's farm—agricultural societies—influence of age upon grafts, cuttings, &c.—on population and cultivation—on agriculture—side hill plough—the white mulberry—silk factory—silk in Massachusetts—value of the willow—farmers—Sun Flower oil—extraordinary product—improvement of cattle—grape jelly—exhausting and ameliorating crops—advertisements, prices, &c.

ITALIAN SPRING WHEAT FOR SEED.

The subscriber has obtained from the Cultivator office at Albany, N. Y. a few barrels of this most valuable variety of Spring Wheat, which he will dispose of. The trials that have been made of the Italian Spring Wheat, in the States of New York, Pennsylvania, Delaware and Maryland, have established the following facts—that it yields largely, is a very sure crop, (winter killing is avoided,) will do well on poor, worn out land, but will prove much better and heavier on a more favorable soil; that land so light and worn down that it will not produce a crop of oats, will produce a fair crop of Italian Spring Wheat; and that the flour makes good light sweet bread. It is a bearded wheat, white chaff, bright yellow stem, the berry variable in color, generally of a reddish yellow. It is seldom affected with smut; if limed, never; it does well in almost any soil, from a stiff clay to a sandy plain. It may be sown in March or April, and is fit for harvest in July, producing in New York from 15 to 25 bushels per acre. It is put up in barrels, containing about 3½ bushels, and the price is \$5 per bushel. Gentlemen at a distance wishing to give it a trial should forward their orders immediately to the subscriber, who will forward it by the first conveyance.

GIDEON B. SMITH, Turf Register Office,
jan 30 Baltimore Md.

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.
jan 30 law 3w

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with largesmooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are engrafted on the white mulberry, which increases their hardihood, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozzettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy

25,000 Florence Mulberry, leaves nearly entire

30,000 white Mulberry, 1 to 2 years old

65 lbs. white Italian Mulberry Seed

750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees be packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.

New York, Nov. 22—28.

TRY THE NEW ESTABLISHMENT.

NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch. Also, Cline's combined Plough

J. T. DURDING.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 41.

BALTIMORE, MD. FEBRUARY 6, 1838.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: FEBRUARY 6, 1838.

The communication of "A Maryland Farmer" shall be attended to in our next."

JUDGE BUEL'S ADDRESS.

We conclude this very able address to-day, and have to apologize for the interregnum that has occurred in its publication. We copied it from the "New England Farmer," the two first numbers reached us in regular course of mail; the succeeding number, however, containing the concluding part, did not come to hand, and we were compelled to break off in a most interesting part of the address, until we could send to Boston for a copy. —Having obtained one, we lay before our readers in this paper the remainder of it, and need not direct their attention to it, as its intrinsic merit will ensure a general reading.

The letter of Mr. Comstock, which we publish to-day, reminds us by the bye, that a gentleman in Frederick County, Maryland, some eighteen months ago, made a formidable proclamation, through our columns, that he had discovered a sure preventive of the ravages of the *Wheat-Fly*, and that he would give it to the public in a form less perishable than the pages of a paper. As we have never heard any thing more of him or his promised book, and many inquiries have been made concerning him and it, we should like to know when the agricultural world may reasonably calculate on having their curiosity gratified. We can assure the writer, that if his discovery has the merit he ascribes to it, his book, among husbandmen, would find as many readers, as did did those of the *Great Unknown* among the fraternity of novel readers, and that he would find our yeomanry just as anxious to combat those miniature hessians, as were our revolutionary sires their more mercenary namesakes, in that thrice glorious struggle for liberty, which vouchsafed us a nation.

AGRICULTURAL COURTESY.

We know not when we have read an article, that imparted more pleasure to us than the subjoined one, which we copy from the "*Delaware Journal*," of the 23d ult. The exchange of visits of the kind between agricultural communities, must be productive of the happiest effects, not only in generating kind feelings, in forming friendships, but in unfolding systems of culture, awakening a spirit of emulation, and giving birth to enterprise, which cannot fail of proving reciprocally beneficial to all the parties engaged in the laudable work. We have always thought, and often expressed ourself to that effect, that no two farmers, however inferior in point of intellect the one may be to the other, can come together and enjoy half an hour's conversation on their respective modes of culture, without each departing the gainer of the interview. The one may exceed in the degree of his theoretical knowledge, while the other's superior practical skill fairly makes amends for what he lacks in the former. —If then, this proposition be founded in truth, and we believe it is, how infinitely greater must that benefit be, where the parties communing together are, on the one part, a committee of intelligent citizens, chosen as the representatives of an *Agricultural Society* of one State, to view the improvements made by brethren equally enlightened in the system of culture in another and neighboring State—to examine choice breeds of stock—to witness her priceless sources of mineral manures, and to be eye witnesses of the magical meliorations which had been produced by their application? In our opinion, it is not a debateable question, that these gentlemen, besides the pleasure they derived from the intercourse—which doubtless was exquisite—were mutually benefitted by the information and knowledge they thus acquired, and that each and all will be animated by a loftier zeal in behalf of that noble calling, which sustains all others.

What a glorious example—what a beautiful illustration—of the fructifying effects of mineral manures, the gentleman of Delaware had presented to them, may be gathered from the sentence which we here transcribe from the account below. —It says, in speaking of the virtues of *lime* and *marl* :—

"No better evidence was exhibited to the committee in this improving county, than was shewn on the farms of the Messrs. Reeves :—lands which cost them but \$4 per acre (and unimproved was dear at that,) covered with cedar bushes and crab grass, and producing nothing like good grass or grain—with the aid of *lime* and *marl*, are now yielding 3 tons of clover and timothy to the acre, with 25 bushels of wheat the past year—and corn, rye and other products in the same proportions."

We would ask the reader, if it be possible for the deputation from Delaware to have witnessed these astonishing effects of the improving character of these manures, without drinking deeply at the same fount of inspiration, which had led their brothers of *New Jersey* to such fields of triumph? Think ye, can they return to their own brave little State—the soul of intellect and of gallantry—without the predetermination to go and do likewise? Already is Delaware, through the intelligent aid of Mr. Booth, the State geologist, developing her mineral resources, and we sincerely and fervently hope, that ere long, a new face will have been put upon her soil—one which, in its wonder-working effects, will substitute for the "cedar bushes and crab grass," fields groaning beneath the weight of luxuriant vegetation. May we ask our readers residing on tide-water—those regions where marl exists—to take courage from the successful use of it by the farmers of *New Jersey*, and give it a fair, full and impartial trial.

AGRICULTURE.

DELAWARE AND NEW JERSEY.

We mentioned in our paper of last week that the agricultural society of this county had, thro' its President, Philip Reybold, Esq. received an invitation from several prominent and enterprising gentlemen of Salem to the marl pits and limestone quarries of that region, and also to see in the adjoining county of Gloucester, the celebrated Durham stock of Mr. Edward Tonkins. The compliment was properly appreciated by the society, and a committee appointed to represent it, and although the weather was unfortunately most unfavorable for the excursion, we learn that a respectable number of the committee were in attendance, among whom were Edward Tatnall, Dr. Thomson, and Joseph Tatnall of this city—Maj. Stockton of Newcastle, Philip Reybold, Anthony Higgins, and Philip Reybold, jr., of Red Lion Hundred. The committee was met on its arrival at Salem by Josiah Reeves, Esq. of Alloways town, Mr. Cassby of Salem, and other gentlemen, and after spending a short time there—were by

common consent handed over to the particular care and kindness of Mr. Reeves, who took them all to his house, and to whose kind attentions and elegant hospitality, we have heard but one expression of opinion by the gentlemen who were the recipients of it. The whole of Friday was consumed in examining the marl pits about Woodstone, Mannington and Sweedsborough, and paying a visit to Mr. Tonkins and his famous stock.

The rich specimens exhibited to us of the shell and green sand marl brought over by one of the committee, as also the limestone of Mannington quarries, which are in the immediate vicinity of the finest beds of marl—must make Salem one of the richest counties of the State, and the clay soil which abounds there, a fine wheat country;—no better evidence was exhibited to the committee in this improving county, (to which nature has been so bountiful in natural manures) than was shewn on the farms of Messrs. Reeves:—lands which cost them but \$4 per acre (and unimproved, was dear at that,) covered with cedar bushes and crab grass, and producing nothing like good grass or grain—with the aid of *lime* and *marl*, are now yielding three tons of clover and timothy to the acre, with 25 bushels of wheat the past year—and corn, rye and other products in the same proportions. The same may be said of all the other lands there, improved in this way. No one without seeing, can imagine the contrast now made between the old sedge commons and the cultivated fields reclaimed from them—the increased value thus given to individual and national wealth, is most obvious and interesting. Specimens of Delaware marl such as were analyzed by Mr. Booth, State Geologist, (from St. George's hundred,) were taken over by the committee and compared with the best qualities of Jersey marl—they appear very similar, and are no doubt equally enriching if judiciously applied, being of the same great veins which cross each of those states and penetrate largely into Maryland—and containing by examination about the same fertilizing matter. We argue the best results to our agricultural interests of both states from this visit of practical and improving farmers to each other, and the good example set by New Jersey, will not be lost on those of Delaware, who are now boring and finding marl daily, in most of the lower parts of this county.

Of the cattle of Mr. Edward Tonkins of Gloucester, the committee speak in the highest terms of admiration and praise. His stock consists of pure Durhams—and of cattle 3-4th and 7-8th in this blood; they say, his cows and 3 and 5 year old steers of this description are models of the kind—and that the two enormous oxen now feeding by him and nearly 8 years old, exceed any thing of the kind they ever witnessed. The average number of persons who visit them is supposed to be one hundred daily, from all parts of the country—and there is little doubt that they will each weigh from 2000 to 2500 lbs. nett—which will make them the finest pair of cattle ever fed in the United States. A report of this visit will be read at the next quarterly meeting of the Society. The committee returned home safely on Saturday, highly gratified with their excursion, and expressing their warmest thanks and obligations to those who tended to make their visit instructive and agreeable. Among those we heard particularly alluded

to were Mr. Josiah Reeve and brother of Allowayston, Mr. Caseby of Salem, Messrs. Smith, Riley and Squire Read of Woodstown, and Mr. Tonkins of Gloucester county, and Messrs. Ridgeway and Inskip of the Mannington lime quarries.—The farmers of Newcastle county will be ever ready to reciprocate the attentions and hospitalities which have been paid them on their late visit, and we venture to predict to our Jersey neighbors, that although they concede the palm for the present to Gloucester county cattle, they will emulate the spirit which has actuated Mr. Tonkins and make the *Newcastle ox* outweigh them all.
P.

BLIGHT OF FRUIT TREES.

We cheerfully comply with the request of Mr. Comstock in giving a place to his communication, and while we are free to confess, if he does possess the knowledge of either a *curative* or *preventive* means, for this disease, that he deserves the patronage not only of the general government, but of that of every state in the union, as such a discovery would really add hundreds of thousands to the products of the land, besides contributing largely to its comforts. But while we thus express ourself freely on this head, we must be permitted to remark, that he takes rather high grounds when he expects the "first officer in each state" either to "notice this subject," or "voluntarily," make him "a generous offer." If he desires remuneration for his discovery—and if it be as *efficacious* as he states it to be, he is richly entitled to it,—he should solicit it himself of the respective legislative bodies. We presume he knows that the purse strings, both of the general and state governments, are not confided to the keeping of the Executives, but to the several legislatures; and we think it hardly possible that he can expect them to approach him—Mahomet must go to the mountain; for he may rest assured that the mountain will never come to him.

[From the Poughkeepsie Telegraph.]

The "Blight," or the "Winterkill," or the premature death of the Pear, Peach, Grape, Apple, Orange, Fig, Cherry, Quince, Goosberry, Mulberry, and all other cultivated trees prevented; the cause and remedy discovered.

DAVID LANDRETH, Esq.

Cor. Sec. of the Penn. Hort. Society—

SIR—Last spring I extracted from the New York Courier and Enquirer, the notice of your Society, (which is now before me), offering, conditionally, a premium of Five Hundred Dollars for the discovery and publication of an effectual means of preventing the attack of the Blight in the pear tree; which together with a reward of Three Hundred Dollars, said to be offered by an individual in New Jersey, for the prolongation of the life of the Peach Tree, have induced me to offer for sale to your society, to the state or states, or to any foreign government or individual, a

knowledge of the cause, of the preventive, and of cure of that disease, known by various names, which generally causes the premature death of all kinds of cultivated trees.

There are one or two almost universal symptoms connected with this disease. The general symptoms in aged fruit trees, are the yellowish tint of the leaves and bark, and the premature ripening of the fruit, and the death of one or more of the limbs; sometimes the trees are almost fruitless for years. When this disease comes on suddenly, the tree may grow luxuriantly in summer, and the following spring appear "*winter-killed*," with the bark detached from the wood near the surface of the ground. When one-eighth of the bark remains attached to the tree perpendicularly, I seldom fail in curing the disease; but in this case, when that part of the tree which has lost its bark becomes perforated with worms, the tree must be severely trimmed or supported, to prevent the trunk from being broken down by the winds.

I can give this disease to any flourishing fruit tree, situated on good soil, and then cure it again; repeatedly. Loudon, in his Encyclopedia of Agriculture, third London edition, 1835, page 261, calls this disease the dropsy, caused by too much water, or *too much manure*, and "for the most part incurable." But I have never killed a tree by using too much manure, although I have sometimes used it extravagantly, when experimenting.

The writers upon the diseases of vegetables generally describe one for each kind of fruit as "incurable," and state that the preventive is ever the same, proper culture." *Now if they knew the error in "proper culture" which produces this disease, they would know the cure.*

My father, Matthew Comstock, late of Washington, Dutchess county, state of New York was an orchardist; a lover of good fruit, and of plants in general. At his decease seven years since, he left in his orchards 4000 apple trees, and 1000 peach trees. For more than twenty years, I have been accustomed to reading Agricultural, and Horticultural, and Botanical works. About 15 years since, I discovered the cause of that disease which I know from personal observation has so generally disheartened the orchardists in the Northern, Southern, and Middle states. Ten years more elapsed before I was positive, from experiments, that I had discovered the cause, and three years more, before I was able to prove it scientifically. But during the last two years, it has been in my power to prove it to a scientific, practical gardener in less than ten words; and yet I have let no one know that I possessed the knowledge before this winter. Last summer, I asked the Hon. *—*—* if he thought the U. S. Congress would purchase the knowledge if the discovery should be made? In his reply he quoted a case in which this state had made a similar purchase, and he thought that the state would do the same again.

The discovery of the error in cultivation which produces the disease, originated solely with myself; and I have no reason to believe that it is known to any other human being. When I have seen individuals giving to their favorite trees this disease I have sometimes given them a little advice; but otherwise, the knowledge has remain-

ed with me profoundly secret; having resolved to keep it so, until I could benefit by it.

It is a discovery that cannot be patented, because, once known to the public, they, from its simplicity, cannot be deprived of it.

It is worth thousands of dollars to each state.

May not our Congress put me in the possession of an orchard for my knowledge? Why should one state purchase it for the benefit of the rest, when all are so equally interested?

Letters directed to the Duchess post-office, N. Y., will be duly received.

Should I receive many communications on the subject, I may answer and inform each person of the names and residences of all the others, so that they may consult and purchase together.

Your conditions were such that it may not be useless for me to state, that I require no payment, before I give legal proof that I possess the knowledge. The proof being unquestionable or positive, the first consideration is the amount of the purchase money.

I am in hopes that the FIRST OFFICER in each state may notice this subject; and that each state in the Union will voluntarily make me a generous offer.

Yours, with respect,

RUSSELL COMSTOCK.

Washington, Duchess co., N. Y. Jan. 11, 1838.

N. B. I would thank the editors who may publish the above, to forward me their paper containing it, with their remarks; in order that I may know the extent to which it is circulated, and the observations that may be made upon the subject.

R. C.

GREAT CROP OF CORN.

The following letter from Mr. Wm. Miller, of Kent county, Md. proves conclusively, that much less ground than is usually devoted to the cultivation of corn, can by heavy manuring be made to yield the desired quantity. Here is an instance of 53 double horse-loads of green barn-yard manure being put on an acre, not only with decided benefit, but producing a result as astonishing as lucrative, considering that the corn was only once harrowed and twice worked with the cultivator. The distance too, at which this corn was planted is worthy of notice, as it shows that close planting is not that scare-crow many imagine.

KENT Co., Md. Nov. 4, 1837.

Mr. Editor—Dear Sir: I have just finished measuring the corn that grew this year on a lot of mine of 5 acres, and have measured a hundred and five barrels and a half and one bushel of ears, making one hundred and three bushels of corn per acre. The corn is called Semman's corn; it is a deep yellow, and not a gourd seed, but a very deep grain, and small red cob, has from eighteen to twenty-four rows on the cob. I have taken great pains in selecting my seed for the last three years. I threshed off three hundred and twenty bushels last May, and found from the measurement it measured from the barrel five bushels and seven eighths of shelled corn. The following is the manner in which I prepared the ground, &c. The soil is a stiff clay; one acre and

a half of said lot was in clover last year, the balance in wheat. I put 265 two-horse cart loads of barn-yard manure on it; the manure was coarse, made out of straw, corn tops and husks, hauled in the yard in January and February, and hauled out in March and April, and consequently was very little rotted. I spread it regularly and ploughed it down with a large concave plough, made by G. Cox of Middletown, Delaware, 7 inches deep. I then harrowed it twice the same way it was ploughed. I then had the rows marked out with a small plough, 3 feet 10 inches wide, and an inch and a half deep. I planted my corn from 18 to 20 inches apart, and covered it with hoes: just drawing the furrows over the corn, which covered it an inch and a half below the surface. When the corn was 4 inches high I harrowed it, and thinned it to two stalks in the hill; in about two weeks after harrowing it, I cultivated it again, which was all the tillage I gave it. We farmers of the eastern shore count our corn by the thousand; I had 38,640 hills on my lot, and I think my corn would have been better had I planted earlier. I did not plant until the last of April. I think the planting of corn shallow, and working it with the cultivator, is much the best way, especially on clover lay. If you think the above worthy of notice, you will please give it a place in your valuable paper.

WILLIAM MILLER.

ROOT CULTURE.

We most earnestly call the attention of our readers to the following communication upon this subject. It does most clearly illustrate the great advantage and profit to be derived from a few acres devoted to the culture of roots. The immense product of the sugar beets may stagger the faith of some at the first view; but if they will only reflect that beet averaging 6 lbs. a piece will give more than the number of bushels named to the acre, their incredulity we think will be somewhat softened down. We would admonish all, that if they expect large products from roots, they must manure well; for the whole tribe are deep feeders; but we have no hesitation in saying, that a good loamy soil, aided by 20 double horse cart loads of well rotted barn yard manure to the acre, will ensure, under good cultivation a thousand bushels of this root to the acre—which with the ordinary quantity of hay, would keep fourteen milch cows in good heart and well to the pail, from November till May. Let those who delight in full supplies of butter and milk make the experiment!

(From the Genesee Farmer.)

SUCCESSFUL CULTIVATION OF ROOTS.

Mr. Tucker: My business is to work, and not to write for the press, but as you ask communications from the farmers, I will in my plain way, state what I have experienced in the cultivation of the Potato, Ruta Baga, Mangel Wurtzel, Carrot, and Sugar Beet; manner of feeding, storing, &c. and the quantity of roots I raised this season.

The Potato with me for ten years, the last excepted, has been a fair crop, but by adhering to the old method of tillage, has been more expensive than is necessary, as I find by the course I have adopted this season. I planted three acres the 29th and 30th of May; first ploughed, then manured with coarse barn-yard manure; then ploughed again and harrowed. Struck out the rows three feet apart with a one-horse plough, say five inches deep; dropped the seed eighteen inches apart, turned back the furrow, and the work was done. For hoeing first and second time, the cultivator, so gaged as to fill the whole space between the rows, was passed through, followed by the hoe, giving a slight dressing, but making little or no hill, and the whole labor, after the ground was fitted, did not exceed three and a half days' work per acre. By the use of the plough the seed was planted deep; the potato never takes a downward direction. The cultivator loosened and mellowed the earth so as to allow the roots to extend, and to occupy nearly the whole row. *Get an expanding and contracting cultivator. Get one! Get one!!* The product was over 430 bushels per acre; 1300 bushels from the 3 acres.

The Ruta Baga I had cultivated to considerable extent for three years with success. This year I planted three acres in drills twenty-one inches apart, 26th and 27th of June. So soon as up, I sifted house ashes and plaister, mixed in equal quantities, at the rate of fifteen bushels per acre, with wire sieves, row by row, over the whole. The effect more than answered my expectations: that little pest, the turnip bug, or fly, or its ravages, was not seen at all, and the growth was most vigorous. One acre of the piece had been planted with carrots, only about one fourth of which was standing, by reason of the insect, bad seed, or both, and ruta бага was planted in all the vacant places in the rows. They were thinned out and hoed twice; they soon covered the ground, and the work was done. The product was over 1000 bushels per acre; 3000 bushels the whole, notwithstanding one acre was partially seeded with carrots, and produced 200 bushels. About one acre of the land is fine sandy loam, and the remainder is slate washed from a ravine, all very highly manured.

The ruta бага I think draws more from the atmosphere, and less from the soil, than any other vegetable; for I have always found it retained the dew longer, and held it in greater quantities, than any thing else. It leaves the ground in finer condition than any other crop, and cannot be too highly valued. The carrot is excellent for fattening cattle, milch cows, &c. but is not so sure a crop, and requires much more labor in tillage. It does not always come up well, and is very liable to be destroyed by the insect.

The Mangel Wurtzel—of this root I planted one and a half acres on the 29th and 30th of May, (too late by ten days) in drills twenty-one inches apart. Thinned once and hoed twice; tillage same as the ruta бага, (ashes and plaster omitted.) About two thirds of the piece was planted with seed, which proved to be a mixed kind of all the beet family; the other one-third part was the pure seed. The crop was fine, and if all had been of the same kind, the product I think would have been one-fourth larger. But as it was, the

yield may be considered a fair one—over 800 bushels per acre, and the whole 1250 bushels. See the importance of having genuine seed, for I have no doubt the product was 200 bushels less than it would have seen had all the seed been pure mangel wurtzel. Reynolds & Bateham, of Rochester, have sold me genuine seeds, and I should have confidence in any they will sell as such. I am much in favor of this root for feeding—probably it is equal to any, except the sugar beet.

The Sugar Beet—of this I had only seed to plant six rods of ground. It seems to be well adapted to our soil and climate. The growth was much greater than any thing I have seen of the beet kind. I have no doubt it will prove most valuable for feeding cattle, as well as for sugar. The product was over 80 bushels, and at the rate of about 2100 bushels per acre, or 63 tons. I rate all by weight, 60 lbs. to the bushel, for otherwise most of the roots could not be measured with any degree of accuracy. Here follows a statement of the produce of seven and a half, and six one hundred and sixtieths acres of what may be considered first rate corn land, and in a high state of cultivation.

	Whole product.	Per acre.
3 acres potatoes,	1300	433 $\frac{1}{3}$
3 do ruta бага, } carrots, }	3000	1000
1 $\frac{1}{2}$ do mangel wurtzel,	200	800
6-160th sugar beets,	1250	800
	80	2100

7 $\frac{1}{2}$ acres 6 rods, 5830 bushels.

Five thousand eight hundred and thirty bushels, at 60 lbs. per bushel, give 346,800 pounds, or 176 1-5 tons. The potatoes 13 tons, ruta бага 30 tons, carrots 24 tons, mangel wurtzel 24 tons, and the sugar beet at the rate of about 63 tons per acre. The crop last year would have brought more than \$2300. What the price may be this year I know not. It is not my purpose to sell any, but to feed all to my cattle; so I have my own market, and trust I shall turn them to good account.

I am now feeding thirty-one head, at the rate of one bushel each per day, with hay nights and mornings, in their stalls, with corn and other coarse fodder through the day. I shall add to their allowance as shall seem proper, and change from one to the other now and then. All the cattle eat greedily, and are doing well.

J. SANDIFORD.

THE MORUS MULTICAULIS.

Copy of a letter from Jos. W. Atkinson, esq. of N. Carolina, to Wm. Prince and Sons, proprietors of the Nurseries at Flushing, dated Jan. 11th, 1838, transmitted to the editor of the Farmer and Gardener for publication.

"Gentlemen—

"Yours of 26th Dec. requesting me to make you acquainted with my success with the *M. Multicaulis* is before me.

"The 2000 plants purchased from you in Nov. 1836, were set out in April 1837, in ordinary soil from them we have about 10,000 plants of from 5 to 6 feet high. We have another nursery the soil of which is richer than the one we set the plants in we purchased from you. The plants in this

nursery are from seven to nine feet high. Our trees are standing in the nurseries without any protection, and have not received any injury from the frost with the exception of a few buds near the end of the limbs which did not have time to ripen. Experience has established the following facts touching the growing of the *M. Multicaulis* in N. C. That either from layers or cuttings the tree will reach a height from 5 to 9 feet in one summer, agreeable to the quality of the soil. That it is not necessary to move them from the nursery nor to protect them in any way during winter. That those planted in a richer soil may be slightly injured by the frost in consequence of their growing later in the fall, while those planted in a poorer soil will mature sooner and receive no injury. That any person desirous of raising the *Multicaulis* for the purpose of feeding the silk worm, may from a small quantity of cuttings produce any quantity that they may stand in need of in a few years with as little attention as they could raise a crop of corn."

MANUFACTURE OF SILK.

The following is extracted from an interesting article, in the 22d vol. of the Cabinet Cyclopaedia, on the origin, progressive improvement, and present state of the silk manufacture.

"The quantity of silk used in England alone amounts in each year to more than four millions of pounds weight, for the production of which myriads upon myriads of insects are required. Fourteen thousand millions of animated creatures annually live and die to supply this little corner of the world with an article of luxury! If astonishment be excited at this fact, let us extend our view into China, and survey the dense population of its widely spread region, whose inhabitants, from the emperor on his throne to the peasant in the lowly hut, are indebted for their clothing to the labors of the silk worm. The imagination, fatigued with the flight, is lost and bewildered in contemplating the countless numbers which every successive year spin their slender threads for the service of man.

"When newly hatched, 54,526 silk worms, are upon an average, required to make up the ounce. After the first casting of the skin, 3340 worms are found to have this weight. After the second change, 610 weigh an ounce. In the week passed between the second and third ages, the number of insects required to make up the same weight decrease to 145. During the fourth age a similar rate of decrease is maintained; 35 worms now weigh an ounce. The fifth age of the caterpillar comprises nearly a third part of its brief existence, and has been described by an enthusiastic writer on the subject, as the happiest period of its life, during which it increases rapidly in size, and prepares and secretes the material it is about to spin. When the silk worms are fully grown, six of them make up the weight of an ounce. It is thus seen that in a few short weeks, the insect has multiplied its bulk more than 9000 fold."

It is said that there are in London at the present time 4700 public houses and ale shops—3000 tailors—2890 boot and shoe makers—2500 attorneys—2900 bakers—1700 butchers—1600

school—1600 apothecaries—1600 green grocers—1100 barristers—1000 cheesemongers—1000 coal merchants—490 pawn brokers—450 fishmongers—400 confectioners, and 250 physicians.

ADDRESS,

Delivered before the Berkshire Agricultural Society, at their Twenty-seventh Anniversary, Oct. 15, 1837.

BY J. BUEL.—(Concluded.)

There are three classes of crops which alternate beneficially with each other, viz:—1st. Grain, or corn, or dry crops, which mature their seed, and most exhaust the fertility of the soil;—2d. Grass crops, of the influence of which upon the soil, I have already spoken;—and 3d. Root, or green crops, embracing turnips, potatoes, beets, clover, &c. In old meadows and pastures, not only the better grasses disappear and coarse herbage and mosses come in, but the soil becomes too compact and hard, to admit the free extension of the roots, and the genial influence of the sun, dew, and atmosphere, which are primary agents in the process of vegetable nutrition. Tillage corrects these evils. It cleans the soil of foul weeds; and converts them into sources of fertility; it breaks and pulverizes the soil, and fits it for the return of the grass crop at the close of the rotation;—while the vegetable matters of the sward contribute to augment the root crop which is to follow. All green crops are more or less fertilizing, when buried in the soil; but clover is to be preferred, as well on account of its enriching properties to the soil, as that it also affords hay and pasture.—I have practised sowing clover seed with all my small grain crops, though I intended to plough the field the following year. The food which this clover affords to the coming crop, richly compensates for the cost of the seed and sowing, to say nothing of the pasture it gives in autumn. Hence, tillage is admirably calculated to fit and prepare the ground for grass; while grass, in return, directly or indirectly furnishes an abundance of food for grain and roots. The fertility of a soil depends essentially upon its power to absorb water by cohesive attraction, and this power depends in a great measure upon the state or division of its parts; the more divided they are, the greater is their absorbent power. The crop upon a hard, compact soil, will suffer from drought; but if this soil is finely pulverized and broken, it will suffer much less. The first may be compared to the rock, which receives moisture upon its surface only; the latter to the sponge which receives and transmits moisture to its whole mass, and which retains it for a long time.

I will close my remarks upon the farm, already too protracted, I fear, for the patience of my hearers, by a brief reference to the prominent crops which seem adapted to the soils and climate of Berkshire.

Although your soils contain sand and clay, and lime, three prominent requisites for the growth of wheat, yet they do not seem adapted to the profitable culture of this grain—they do not enable you to compete successfully with the great wheat districts of the west. This grain may be grown for family use, but I doubt whether its culture can be made profitable here, as an article of com-

merce; when cultivated, however, the spring varieties are to be preferred to those of winter, as being less exposed to the vicissitudes of the seasons, and the ravages of insects, and consequently more certain in their returns.

Indian corn is as indispensable to the Yankee, as the potato is to the Irishman, or the oat to the Scotchman. It is not only meat and meal to his family, but it is food for his cattle, and manure for his land. It is therefore a very desirable crop, and hence it is often cultivated at an absolute loss. It requires a great outlay of labor; yet if the soil is dry, and clean, and rich, and the season propitious, few farm crops make a better return. It should never be planted, in this latitude, upon wet or cold, or poor lands. The shortness of the summer is a serious objection to its culture. There are several things, however, which may be done to obviate, or at least to lessen, this objection.—The earlier varieties ripen a fortnight earlier than the late varieties. By making the land dry, we may raise its natural temperature. By the liberal use of unfermented manure, spread and well turned under by the plough, the warmth of the soil may be farther increased, and the growth and maturity of the crop thereby accelerated. If the surface be flat, and the crop likely to suffer from heavy or protracted rains, throw your land into ridges for three rows, or into narrow ridges for one or two rows, which will render it more dry and warm. In the culture of this crop, I have found the harrow and the cultivator, far preferable to the plough. The latter cuts and bruises the roots, which are ordinarily of greater length than the top, wastes the manure, and robs the plants of more than half their pasture. Earthing or hilling the plants, is also in a great measure dispensed with in modern husbandry—it being found that good culture consists in merely keeping the ground clean, and its surface mellow and open to atmospheric and solar influence. In harvesting, it is decidedly best to cut the crop at the ground, at the ordinary time of topping it, when the kernels have become glazed, and immediately to set it in stooks to dry and mature. The advantages of this practice are, 1st, it secures the grain and fodder from the injurious effects of early frost; 2dly, it gives more and better corn than when topped in the old mode; and lastly, it affords much more and far better fodder than any other mode of harvesting. The laws of vegetable physiology show, that the elaborated or *descending* sap of plants, constitutes their true and only food, and hence corn can receive no accession of growth, after it has been divested of the leaves, the elaborating organs, which grow above it. It is equally apparent, that when the stalk and grain are cut up together, the latter continues to draw elaborated food from the former for some time after it has been severed from its root. By attention to these matters, I have escaped all injury from frost to my own crop, for the last 17 years, and have not been disappointed in obtaining a good—an abundant harvest.

This country, I think, is well adapted to the cultivation of oats. But oats, like store pigs, are too often left to shift for themselves, or to take up with what nothing else would thrive upon. From the abundant product which they yield to good culture, their exemption from disease and insect enemies, and the uniform high price they com-

mand in the market, I venture to recommend an increased attention to their culture, particularly on cold, moist lands, for which they are particularly suited.

Root culture seems well adapted to your soil, your climate, and your principal business—the rearing of cattle and sheep. This is emphatically the potato, the turnip and the beet zone—the potato on the stiffer soils, the ruta бага on those of a sandy or gravelly texture, and the beet on those of a loamy or medium grade. And they are all excellent for thriving on fresh manure, and of fitting it to become the proper food for your grain crops. They yield the greatest amount of food for animals; they ameliorate the soil, by pulverizing and cleaning it; they add much to the manure of the farm; and they alternate remarkably well with grain and grass in the system of convertible husbandry. In the culture of these crops, hand-hoeing may be in a great measure dispensed with—the plough and the harrow being principally employed in cultivating the potato, and the drill harrow and cultivator or horse hoe, in sowing and cultivating the swede and the beet. A good dressing of manure will add from forty to fifty per cent. to the value of these crops.

I cannot speak in too high commendation of the Swedish turnip, or ruta бага, particularly to the cattle and sheep farmer. It has never disappointed my expectations. I have readily converted it into meat and milk, and ever found a demand and a fair price for it in market. The tops afford a rich food for cows and other neat cattle, in late autumn. Secured in cellars, the roots may be fed to stock during winter; or, if buried in the ground, they may be commenced upon in March, and fed till June. They give a great flush of milk to cows, without imparting to it, where the animals have daily access to salt, much unpleasant flavor. The horse and the hog feed and thrive upon them; the ox will fatten upon them, fed with two bushels a day, and a trifle of hay or straw; and they are invaluable for sheep in the winter and spring, particularly to milk giving ewes. Six hundred bushels to the acre may be deemed a medium crop, under good culture, though the product has been known to exceed this quantity three fold. The ruta бага requires a loose, rich, dry soil.

The mangold wurtzel has been highly commended by those who have cultivated it successfully; but my experience with it has been but limited, and my success not flattering. It demands more labor than the ruta бага, is less certain in its growth, and does not keep good so long. But it may be grown on loams that are too tenacious for the Swedes.

The sugar beet may be cultivated as easily as the mangold wurtzel, yields nearly the same product, and its culture is about as profitable for cattle food, and for ameliorating the soil, as the latter. But when we consider its value as a material for the production of sugar, I cannot but consider its introduction among us, as a farm crop, as forming a new and auspicious era in our husbandry. All beets abound in saccharine matter, but the white Silesian is denominated the sugar beet, on account of its diminutive, or rather medium size—it having been ascertained, that the juices of the smaller roots are more concentrated, or abound more in sugar, than the juices of the

larger growing varieties. The culture of the sugar beet has but commenced among us, and little or no preparation has yet been made for the manufacture from it of sugar. I have perfect confidence, however, that this will soon be done, and that the farmers of Berkshire, will, ere long, find a sure and liberal profit in the culture of the sugar beet.

There are many other topics, connected with the prosperity of the farmer, and through him with the best interests of the country, which I should like to discuss, did time permit; but I forbear; and will close with some admonitory hints, to the young class of my audience.

Young farmers of Berkshire! You are soon to fill the places occupied by your fathers. Upon you will devolve, not only the charge of this society, which has been so far sustained with praiseworthy zeal, and great public usefulness, but the welfare and character of the country. Your situation will soon be one of great responsibility.—As you sow so you must reap. If you fail to deposit the good seed in the spring time of life, the olive will yield you no oil, nor the fig-tree its fruits, in the summer of manhood; the harvest of autumn will disappoint your hopes, and a cheerless winter of age will come upon you, embittered by regrets of neglected opportunities of providing comfortably for yourselves, and of doing good to others. You have before you worthy examples, in the industry, enterprise and intelligence of your fathers. But neither talents, nor wealth, nor virtues are hereditary. You must build upon your own foundation—you must become the artificers of your future fame and fortune. You must yourselves enrich your minds, sow the seeds and mature the good plants, if you would reap the abundant harvest, and enjoy the reward. The elements of education which you have gathered in the schools, are the paper upon which you are to record your characters—the mere implements of usefulness. They will profit you only as you use them with diligence and good judgment. But the standard of your acquirements must not be graduated by the past. Every age demands a greater degree of mental culture, than the one which preceded it; and it behooves you to qualify yourselves for that which now dawns upon your mental vision. The more you learn to depend upon yourselves, the more you will find developed capacities and energies, of which you are yet unconscious of possessing—the more likely you will be to prosper in life. The sapling which is sheltered by the towering pine, or wide-spreading oak, is neither so strong nor so graceful, as that which grows up without shelter, and acquires strength and solidity from the buffeting of the winds and storms. The plant that is nurtured in the shade is not so beautiful—its blossoms are not so fragrant, nor its fruits so rich, as the form, the flower and the fruit of that which grows in the glare of solar light.

The culture of the mind should engage your early attention, that you may sooner profit by its counsels and its powers. Mind is the great master power, which instructs, guides and abridges human labor—the grand source of intellectual pleasure—a faculty which distinguishes man from the brute, and which, as it is more or less cultivated, marks the gradations in civilized society.—Say not that you have no leisure for this, that your

time is engrossed in proving for your animal wants. Franklin found time to bestow upon his mind, high and useful culture, amid the cares and labors of an active mechanic's life. The hours that the avocations of the farm allow to study, amount, in the aggregate of early life, to months and to years. Knowledge is power; it is wealth; it is respectability; it endures with life. The mind may be likened to the soil. Both are given to be improved; and the measure of our enjoyments, and the welfare of society, depend upon the good or bad culture we bestow upon them.—Indolence may be compared to the coarse marsh plants, which feed upon the soil and taint the air, without yielding any thing comely or useful in return, for man or beast;—intemperance, to broken down fences, which permit beasts to enter and consume the earnings of industry, and beggar the offspring of the owner;—litigation, to the thorns and thistles, which rob the soil of its fertility, and mar the beauty of the landscape. While on the other hand, the faithful application of knowledge to the useful purposes of life, may be likened to the draining and manuring, which give fertility to the soil; the good habits which we establish, to the good culture bestowed by the husbandman—indicative alike of carefulness and plenty;—and the embellishments of the mind in literature, science and taste, to the gardens and grounds, abounding in all that is grateful to the senses, which should surround and adorn our rural dwellings, and beautify the country.

You have chosen an employment which is honorable, profitable and independent. Devote to it your best powers, till you have become master of the art, or of such branches of it as you design to follow—and until you have acquired so much of the science—a knowledge of the why and the wherefore—of the great laws of nature, upon which good husbandry is based, as shall enable you to conduct your operations with judgment and success. "Who aims at excellence, will be above mediocrity; who aims at mediocrity, will fall short of it." So the adage teaches, and so is the response of experience.

And finally, fellow-citizens, may you all be wise, all be useful—that you may all be happy—here and hereafter.

Cow Tree—Mr. Lockhart, a celebrated botanist, in a letter from Trinidad, speaks thus of the milk tree in Colombia: "I have just returned from an excursion to Carraccas, where I collected the juice of the cow tree (Palo de Va.) and I have now the pleasure of sending you a phial of the milk, together with a few leaves, and a portion of the tree. The Palo de Yaca is a tree of large dimensions. The one I procured the juice from, had a trunk of seven feet in diameter, and it was 100 feet from the root to the first branch. The milk was obtained by making a spiral incision in the bark. The milk is used by the inhabitants wherever it is known. I drank a pint of it, without experiencing the least inconvenience. In taste and consistence, it much resembles sweet cream, and possesses an agreeable smell. I was so fortunate as to procure some young trees and roots of the Palo de Yaca, which I will endeavour to increase."

[From the Ohio Farmer.]

CATTLE HUSBANDRY.

The subject of the following correspondence is one of great importance to the citizens of Ohio, and of all the Western states. We cannot sufficiently condemn the fraud, while we want adequate words to thank those who have had the courage to expose it.

The cattle interest is one of very great value to us, and it cannot be too carefully watched and protected by our farmers. We hope that they are put upon their guard, by the frank and clear statements of Mr. Watson, that they will unhesitatingly frown upon all attempts at imposition, when practised by designing men at home or in other States.—ED. FAR.

[From the Hillsborough (Ohio) News.]

DURHAM CATTLE.

From the character, source, and object of the subjoined communication, we feel assured, without a word from us, it will arrest the attention, not only of every breeder of Short Horn Durhams, but the press of Ohio generally. It treats of a subject in which the citizens of the State are deeply concerned, and this interest is daily becoming more manifest and important. Its protection will therefore appear the more obviously the duty of those whose position will enable them to give the present warning publicity.

SHORT HORN DURHAMS.

Mr. Brown,—The following communication from Mr. Watson, of Connecticut, has been forwarded to me, (as it no doubt has been to others of the breeders of fine cattle in Ohio,) to warn us of the impositions designed to be practised upon us by a band of SPECULATORS. As not only the principal breeders, but every citizen in the community, is interested in preventing such impositions, I hope you will publish Mr. Watson's letter, and that every editor in the State will, in some way, repeat the warning. The citizens of Ohio have already suffered immensely from such impositions, practised upon them by a few unworthy Kentuckians, whose only aim was unhallowed gain, and who were willing to stamp, by certificate, one-fourth, one-half, and three-fourth bloods, with the character of thorough-breds, rather than not succeed in enriching themselves, at the expense of our unsuspecting citizens.

It was anticipated that the high prices paid for the very superior cattle sold by the Ohio Importing Company, in 1836 and '37, would increase the desire, already existing among our farmers, to own fine stock, and by attracting public attention, raise up speculators in other parts of the country, who would attempt to play off upon Ohio the game so successively practised heretofore by others.

These expectations have been realized. So soon as the account of the first sale reached England, Mr. Whitaker, of that country, shipped a lot of cattle, (very inferior it is said, to the Ohio Company's Stock,) but receiving no encouragement to bring them West, they were sold at Powelton, near Philadelphia. Other importers have engaged in the same trade, and from Mr. Watson's letter, it appears that our Yankee friends in Connecticut are preparing to furnish the farmers of

Ohio with an importation of *New England Durhams*.

Mr. Watson is the first gentleman who has manifested the moral courage to brave the resentment of his neighbors, by warning the citizens of another State against such intended impositions. We hope he will not be the last who will take this high stand, but that his example will be followed hereafter whenever a similar case presents itself in any quarter of the country. The difficulty, if not impossibility of judging of the blood and value of cattle merely from observation, renders it absolutely necessary that we should have confidence in the integrity and standing of the breeders, or their agents, from whom we purchase; and while unprincipled speculators are permitted to enter into competition with honest breeders, no such confidence can exist, and no security be had for the blood of the stock.

The mixed bloods that have been or may be brought into the country, will no doubt tend very much to improvement of the common stock, and should be looked upon as a very valuable acquisition. But as that acquisition has heretofore been made at too dear a rate, I regard it as the duty of every good citizen, to guard the community against unwarranted tribute in future.

A. TRIMBLE.

EAST WINDSOR HILL,
Harford co., (Conn.) Dec. 4, 1837. }

DEAR SIR:—Having seen by the papers that the farmers in Ohio take great interest in raising fine cattle, and that there has been a public sale of Durham improved short horn cattle at Chilliscothe, and that they brought high prices, I take the liberty to address you on that subject.

Having been interested in the raising of cattle for more than forty years, particularly for the latter part of the time with my two sons Ralph Watson and Edward H. Watson, in raising Durham improved short horned cattle of pure blood—having seven years owned the celebrated imported bull Holderness, which cost \$1,000, and was afterwards exhibited by us as a show in the city of New York, in 1829, and sold for \$1,000, and owned the fine imported Durham bull Nelson, for many years, which cost about the same price.—Also, I now have the famous imported bull Lord Althrop, got by the Earl of Exeter's celebrated bull. Althrop in ordinary flesh, when only four years old, weighed 2,246 lbs. We have also the imported cow Lady Althrop, which we imported in the ship Hudson, E. E. Morgan of New York, Master, at an expense of 400 dollars. Her general weight is 1550 lbs.—and has given from 30 to 36 quarts of milk per day. And now, among others, we have two very fine imported Durham Cows, selected from the best stock in England, by Captain Norham Hard, of New York, and have the progeny to the third and fourth generation, and have sold many at high prices; and by great care and attention to this our principal business, have established a character and reputation for raising fine Durham improved short horn cattle, and can furnish those which we will warrant pure blood. Some people have sent their common cows to our fine bulls, and there is considerable stock in this vicinity and state, and in Massachusetts, that are one-half, five-eighths, and three-

fourths mongrel breed. Some of them are speckled and fancy colors, and have great resemblance to full blood cattle. The envious disposition of some men, and the late sales at Ohio, has raised a spirit for speculation in this Yankee State, and I am informed that a company has been formed, and that droves of these spurious animals have been purchased up, together with bulls and cows that do not breed, at a price from 30 to \$50 per head, and it is said that they are intended for the good people of Ohio. The speculators may recommend their agents and their cattle; and fearing that they may make use of our names improperly in the sale of their cattle, I have thought I owe it to ourselves and our Western agricultural friends, to inform them that there are other families of Watsons in this county besides mine, and that there are men in this town who are not responsible men, and men who cannot be relied on; and that you may depend that none of our cattle have been sent to Ohio, and that I know of no full-blood cattle that have. Therefore, it may be well for you and your friends to be CAUTIOUS what cattle you purchase, and of whom.

If you, or any of your friends wish for proof or further information, if you write to my sons, or Hon. Eli B. Haskell, Increase Clapp, or Joshua Risley, Esq., Postmaster, East Windsor Hill, Conn., they can probably give it you.

I am, Sir, your's most respectfully,

JOHN WATSON.

To the Editor of the Farmer and Gardener :

RICHMOND, Jan. 22, 1838.

Sir,—Referring to the American Farmer of May, 1833, p. 88, vol. 15, I find your advertisement of Mr. John McMullin's stocking loom. I wrote to him some time since, requesting him to inform me what it cost, &c., as it is not stated in your notice. I have not heard from him. I write to you now, to ask if he resides at the place designated in your notice, or has he removed, and to what place? Please answer these queries, and give me such other information on the subject as you may consider useful in enabling me to procure one of his stocking looms, if I conclude to do so after obtaining the information now sought for. Excuse the liberty I have taken in making these enquiries of you.

Very respectfully.

REPLY.

As we have had numerous inquiries similar to the above, we will state, that on the receipt of other communications we addressed letters to Mr. McMullin, at what we presumed to be his residence, asking the desired information; but were never able to obtain any thing definite upon the subject. In reply to one letter which we addressed to a gentleman in his supposed neighborhood, we learned that he had sold his right to a person who did not comply with the terms of the contract, and that thus embarrassed, Mr. McMullin had for the present suspended his manufacturing of the machine. This is all we know concerning the matter; but we must here express our re-

gret that any thing should have occurred to prevent Mr. McM. from going on with his interesting and useful machine; for from our opinion of its merits, we believe that it would have proved highly beneficial to the agricultural community, and that there is no department in the household affairs of the farmer more susceptible of improvement than the fabrication of stockings. And we believe too, that the machine in question was the very thing required by the interests of all persons engaged in farming or planting, and especially of that interesting portion of them who have a large number of slaves dependant on them for this necessary article of clothing.

Editors in the neighborhood of Mr. McMullin would confer a favor on that gentleman as well as the public by giving the letter of our correspondent an insertion, as by so doing, they may elicit information of great moment.

Burning Smoke—An invention for burning smoke has recently been patented in England, which promises a great reduction in the consumption of fuel. The editor of the Liverpool Albion thus remarks in relation to this important discovery:

"We acknowledge that we had been rather sceptical on the subject of burning smoke, inasmuch as all the plans which we had previously seen in operation for the purpose, have been more or less liable to objections which have militated against their general practicability; but in this case there is nothing arising out of its construction, in either expense, danger, or complexity which can operate against its universal adoption; but on the contrary, the smoke is most completely consumed, upon a simple, cheap, and safe plan. It is applicable, either to locomotive, marine, or land boilers, and we have no hesitation in predicting that it will soon be in general use. Upon a fair calculation, it appears that the Liverpool and Manchester Railway Company, alone, may save upwards of £.6000 a year, by substituting coals for coke, which they are at present compelled to use, in order to dispense with smoke. In marine or land boilers, the saving must be enormous, by burning those dense clouds of smoke which in ordinary cases, are suffered to escape at the chimney tops, thus rendering available the vast accumulation of carbon, which it contains."

How to raise a Blister.—The Lancet gives the following quick and simple mode of raising a blister.

"The surgeon cuts a piece of brown paper of size and shape he intends vesicating. This being well damped or moistened with water, is placed on the limb affected, a smoothing iron, (such as is used by washer women,) being previously well heated, is applied over the moistened paper; this plan produces a vesicated surface almost instantaneously, being effected by the steam generated by the contact of the hot iron and moistened paper. This method of blistering, being more speedy and less painful than that commonly adopted, is now generally used in all cases where it is a matter of importance to produce immediate vesication."

500 ENGLISH GOOSEBERRY PLANTS.



The subscriber early in last December received, among many other chaste articles, 500 large premium Gooseberry Plants, direct from Manchester, England, assorted cutlery—Price \$4 per doz.

DOUBLE DAHLIAS.

Of this magnificent Flower, he has a large assortment of the newest and best varieties, of strong Roots in a fine state of preservation, and expects to have potted, plants of the latest imported, and his best varieties deliverable early in May, at reduced prices, according to quality, all which can be safely packed and sent any reasonable distance.

ORNAMENTAL TREES AND SHRUBS,

A large stock mostly of thrifty large size plants.

MORUS MULTICAULIS or Morus Alba Mulberry, for feeding Silkworms; and Ornamental Grape Vines, two and three years old, of most all the best sorts for cultivation, and cuttings of the same.

Fruit Trees assorted as usual, and Asparagus Roots.

Orders inclosed by mail or otherwise, will be carefully dug, packed and forwarded, on the most reasonable terms. See printed and priced catalogue to be had gratis of the subscriber or R. Sinclair, jr. & Co., Baltimore.

ROBERT SINCLAIR, Sen.

feb 6

2t

AGRICULTURAL SEEDS, &c.

R. SINCLAIR, jr. & Co. Light-street near Pratt-st. Wharf, offer for sale

ITALIAN SPRING WHEAT, received from Northern growers of undoubted character.

DUTTON, or YELLOW FLINT CORN esteemed for great product on ordinary land, early ripening, &c.

BADEN, or PROLIFIC CORN; this Corn was introduced by Mr. Baden, a Maryland Farmer, and is highly recommended for great product of corn and fodder. The late ripening of this corn adapts it particularly to the Southern States, requiring the best soil and long season to produce a full and mature crop.

Also, Large Yellow MISSOURI CORN, White Flint or Mandan, and several other varieties for small garden plantations.

POTATOE OATS, weighing 40 lbs. per bushel.

AND FOR SALE

American and European FIELD SEEDS of every description.

GARDEN SEEDS—A full assortment, warranted fresh and genuine.

AGRICULTURAL and GARDEN IMPLEMENTS and TOOLS, consisting of such as are most esteemed by the Cultivator for usefulness and despatch.

feb 6

3w

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, JR. & Co.,
Light, near Pratt-street, Balt.

CONTENTS OF THIS NUMBER.

Notice of a communication—do. of Judge Buel's address—do. of Mr. Comstock's letter—do. of the courtesy between the agriculturists of Delaware and New Jersey—blight of fruit trees—great crop of corn in Kent Co. Md.—on the culture of roots—the Morus Multicaulis in N. Carolina—manufacture of silk—statistics of London—Judge Buel's address concluded—the cow tree—frauds in Durham cattle—query and reply relative to M'Mullin's stocking loom—burning smoke—how to raise a blister—advertisements, prices current.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	70	72
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana — Alabama	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's.....	"		
SuperHow. st. from stores	"	7 87	8 25
" wagon price,	"	7 50	7 75
City Mills, super.....	"	8 00	8 25
" extra	"	8 25	8 50
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhds.	hhd.	20 50	
do. in bbls.	bbl.	4 12	
GRASS SEEDS, wholes. red Clover,	bushel.	5 25	5 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.		7 50
Slaughtered,.....	"	6 25	7 00
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LINE,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	4 00	4 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	95
Susquehanna,	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wraperry, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,...	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,...	"		
" ground leaf,...	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 70	1 80
Red, best	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	35	
" in hhds.....	"	34	
" wagon price,.....	bbls		30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	20 22	
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

REMARKS—In Flour prices the same as last week ; but holders are much more firm.

A cargo of 20,000 bushels wheat from Rotterdam is the only arrival which we have heard of, all of which has been put in store ; we hear of no transactions at all in the article.

Whiskey has declined fully one cent per gallon.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,.... do.....	"	11	
Middlings,.... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ————No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	
Branch at Baltimore,....	do	Farmers Bank of Virgi. 1½
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		
Banks in Baltimore,....	par	Branch at Fredericksburg, 1½
Hagerstown,.....	3a	Petersburg,..... 1½
Norfolk,.....	1½	Norfolk,..... 1½
Frederick,.....	do	Winchester,..... 1
Westminster,.....	do	Lynchburg,..... 1½
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,....	do	Bank of the Valley,.... 1
Salisbury,..... 1 per ct. dis.		Branch at Romney,.... 1
Cumberland,.....	par	Do. Charlestown,.... 1
Millington,.....	do	Do. Leesburg,..... 1½
DISTRICT.		
Washington,.....		Wheeling Banks,.... 3a½
Georgetown,.....	Banks, ½ p.c.	Ohio Banks, generally 6a7
Alexandria,.....		New Jersey Banks gen. 5
PENNSYLVANIA.		
Philadelphia,.....	par	New York City,..... par
Chambersburg,.....	½	New York State,..... 3a4
Gettysburg,.....	do	Massachusetts,..... 3a½
Pittsburg,.....	3½	Connecticut,..... 3a½
York,.....	½	New Hampshire,..... 3a½
Other Pennsylvania Bks. 2		Maine,..... 3a½
Delaware [under \$5].... 4		Rhode Island,..... 3a½
Do. [over 5]..... 1½		North Carolina,..... 5
Michigan Banks,..... 10		South Carolina,.... 6a7
Canadian do.....	10	Georgia,..... do
		New Orleans,..... 12

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

ITALIAN SPRING WHEAT FOR SEED.

The subscriber has obtained from the Cultivator office at Albany, N. Y. a few barrels of this most valuable variety of Spring Wheat, which he will dispose of. The trials that have been made of the Italian Spring Wheat, in the States of New York, Pennsylvania, Delaware and Maryland, have established the following facts—that it yields largely, is a very sure crop, (winter killing is avoided,) will do well on poor, worn out land, but will prove much better and heavier on a more favorable soil; that land so light and worn down that it will not produce a crop of oats, will produce a fair crop of Italian Spring Wheat; and that the flour makes good light sweet bread. It is a bearded wheat, white chaff, bright yellow stem, the berry variable in color, generally of a reddish yellow.

It is seldom affected with smut; if limed, never; it does well in almost any soil, from a stiff clay to a sandy plain. It may be sown in March or April, and is fit for harvest in July, producing in New York from 15 to 25 bushels per acre. It is put up in barrels, containing about 3½ bushels, and the price is \$5 per bushel. Gentlemen at a distance wishing to give it a trial should forward their orders immediately to the subscriber, who will forward it by the first conveyance.

GIDEON B. SMITH, Turf Register Office,
jan 30 Baltimore Md.

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.
jan 30 law 3w

MULBERRY TREES.

75,000 Chinese Morus Multicaulis, all on their own bottoms, of various sizes, from one to six feet, at the lowest prices. The wood is well matured and very perfect, and they have become acclimated, by successive propagation in a most exposed location—Prepared Cuttings will be supplied at the lowest rates.

3,000 hybrid short jointed Mulberry, with large leaves, very hardy and on their own bottoms—5 to 6 ft. in height.

20,000 Chinese Morus expanse, with largesmooth glossy leaves, very succulent and nutritious, and greatly loved by the worm. This is a most valuable variety for the North, being very hardy, and none more highly esteemed in France. They are grafted on the white mulberry, which increases their hardihood, and are 5 to 7 feet in height—This is the only engrafted kind.

3,000 Dandolo or Mozettiana Mulberry, 1 and 2 years old from seed, a most excellent variety, with large leaves and very hardy

10,000 Brussa Mulberry, very hardy
25,000 Florence Mulberry, leaves nearly entire
30,000 white Mulberry, 1 to 2 years old
65 lbs. white Italian Mulberry Seed
750 lbs. white and yellow Sugar Beet Seed

Priced catalogues of the above, and of Fruit and Ornamental Trees, Green House plants, Bulbous Flower Roots, splendid Dahlias, and Garden, Agricultural and Flower Seeds, sent gratis to every applicant. Orders sent per mail will meet prompt attention, and the trees are packed carefully and forwarded as desired. Companies or individuals desirous to contract for large numbers of trees will be dealt with on the most liberal terms.

WM. PRINCE & SON.
New York, Nov. 22—28.

TRY THE NEW ESTABLISHMENT.

NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. or ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch. Also, Cline's combined Plough.

J. T. DURDING.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 42.

BALTIMORE, MD. FEBRUARY 13, 1838.

Vol. IV.

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the *N. W. corner of Baltimore and North streets, over the Patriot office*, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

TUESDAY, BALTIMORE: FEBRUARY 13, 1838.

We publish in another part of this day's impression, the very able address delivered by Mr. Ritchie, on taking the chair at the Editorial Convention recently held in Richmond, Va. and, from a deep sense of the truths it contains, we commend it to the favorable consideration of our readers. The graphic description which he draws of the condition of editorial *cornucopias*, generally, is so strikingly just, and so peculiarly so with respect to our own, that it reminds us of an imperious duty which we owe to ourselves, and to those to whom we are under pecuniary obligations, to call upon our patrons to render that justice, which we are sure they have unintentionally withheld from us. We are aware of the difficulties of a monetary nature, which, in their wide spread throughout our country, have prevented many from making their remittances; but after making every proper allowance on this score, circumstances beyond our control, force us to make this appeal.

When we purchased this establishment, we purchased the outstanding debts, and gave a valuable consideration therefor, and thus became the *payers* in fact of the outstanding debts due by its subscribers. In assuming this responsibility, we were influenced by considerations which we are certain if known would be duly appreciated, and find a response in the bosom of every one interested in the well-being of the paper. In looking over the list of subscribers, we saw the great body of them among the respectable planters and farmers of the *middle, southern, and western* states—among a class of men, who we felt certain were not only disposed, but able to meet the claims respectively against them—and being duly impressed with a desire, so far as in our humble abilities the power lied, to promote the interests of husbandry, we did not hesitate for a moment to take the step we have taken—and influenced still further by a wish to subserve the interests of the

cause, we reduced the subscription price of our paper 50 per cent, relying upon the punctuality of its patrons in the *first* place, and *secondly*, in their kindness to aid us in increasing our list, to remunerate us for the voluntary assumption of responsibility and reduction of price. Many, we say with feelings of gratitude, have realized our expectations to the letter—aye, have exceeded them.—But we regret to be compelled to add, that a very large number are our debtors, making an aggregate of debts due us of *several thousand dollars*, and that the number of those who owe us one year's subscription, is exceeded by that of those who owe us for 2 and 3 years. That this state of things should *not* exist, we are certain our subscribers will admit, and we feel, ourselves, that it *should not*, as we are conscious we have exerted every means within our power to render our paper acceptable as well as useful to the farmer and planter, and if we are to judge from its increase, we may be indulged with the hope, that it is so esteemed by them. Had we the amount due us, it would render our circumstances easy, and place us in a position to increase the sphere of our usefulness. When we reflect that the sums individually due us, are *small*, and can be spared without inconvenience to any, as the aggregate is large, and of the first importance to us, we do hope, that each subscriber will forward us by *mail, without delay*, the amount respectively due by him. In so doing he will, while he renders us *justice*, place us under obligations of heartfelt gratitude.

PROPOSED BOUNTY ON WHEAT, &c.

A bill has been introduced into the legislature of Massachusetts, proposing to grant a bounty of \$2 to every person who shall raise 15 bushels of wheat, and 5 cents for every additional bushel raised by such person. The bill further contemplates granting a premium of \$100 to such person as shall raise the *largest* quantity of well cleaned wheat in any county in said state.

The entire quantity of wheat raised, in the whole state of *Massachusetts* in the year 1830, is stated at 16,000 bushels; whether the quantity has materially increased since that time, we have no present means of ascertaining; but from the

solicitude manifested by the above movement in the legislature, we should presume not. We take it for granted that the present measure grows out of the success which has attended the bounty offered in the state of *Maine*, and the existence of that desire, which is the offspring of paternal governments, to watch over and further the interests and happiness of the people. Sensible as *Massachusetts* is, that no state can be independent, which has to rely upon others for its breadstuffs, she is laudably anxious to offer such incitements to her people, as will secure for her the same exemption from dependence for a supply of the staff of life, as has been brought about by the wise enactments of her neighbor; and let the *cost* be what it may, in *bounties* and *premiums*, she will be more than remunerated by the solid and lasting benefits which will accrue to her.

Should this law obtain the sanction of the legislature, we doubt not its salutary effects will be so striking, as to cause each of the other New England states to follow the example which will thus have been set them, by *Maine* and *Massachusetts*. Should they do so, the *wheat* growing states will lose a most important market for their surplus grain, one which, in the present condition of the world,—when Europe is in part, furnishing our markets, and those of all others in want of it, with grain,—will be difficult to be supplied in the hour of need. Seeing then, that there is a probability of being thus deprived of their best customers for one of the great staples of the *middle states*, does it not behoove their *agriculturists* and *legislators*, to look about in advance, for some substitute to take the place of the wheat culture, if not entirely, to such an extent, as will make the blow, come when it may, fall with an easy force? We think prudence would so dictate.

Again—*Maine*, animated by her successful experiment in behalf of wheat growing, we find by a motion made in the legislature now in session, is disposed to avail herself still further of the benefits of bounties. The committee on agriculture have been directed to consider and report on the expediency of allowing a bounty on *barley* and *rye*. The instructions to the committee contemplate allowing \$1 for the first 20 bushels, and 3 cents for each additional bushel, not exceeding one hundred raised by any one individual.

THE LAW OF TRESPASS.

A petition from this county is now before the Legislature of Maryland, making the plundering of orchards, fields, &c., a criminal offence. By the distinction of the old English law, which was heretofore in force in this state, the individual who feloniously took from a fence a rail, could not be punished as a felon, whereas, if he had stolen the same rail when detached from the fence, he would be liable to be indicted and punished; and the same was the case in regard to other appurtenances of real property. The only remedy in cases in which property was taken which was a part of the *reality*, was an action of trespass, and actions of trespass are not generally of much avail with thieves. The object of the memorial is to abolish these antiquated and foolish distinctions of the common law. So look out ye corn stealing rogues!—*Pol. Exam.*

We think it full time that some wholesome enactments should be made to protect men in their right of property. As the law now stands, it is a mere trespass to go into a man's corn field and take away his entire crop, if the corn be standing on the stalks. If, however, the corn should be pulled, it is an act of *felony*. Now can any one explain the *difference* in the moral enormity of the two offences? In our opinion there is none.—Why then should the law come in with its *fiction of reality* to screen the depredator from punishment—full and exemplary punishment? There is no justifiable reason for the distinction; for let the subject be considered in what light it may—morally, both acts are *thefts*, and the injury in both cases are the same to the individual whose property has thus been spirited away. To say, that the law allows of an action of *trespass*, is in so many words a denial of justice; for what do those who thus take away the property of others care for such actions? Nothing. They have no means to indemnify the damage done, and are utterly regardless of the verdict of a jury.

Again, an unprincipled fellow may go and cut down his neighbor's timber, and if caught he may be sued for a *trespass*; but what does this avail the owner for his loss? Nothing, and for the reason assigned. But if the owner shall have cut down this timber, and any one takes it away feloniously, it is a criminal act, and he is punishable as a felon. Now again, we ask, is there any real difference in the two crimes? We answer no, and would ask, why should the law throw a shield around the bad acts of evil doers?

If we were put upon our oath, we would say that for the last two years we have had one-fourth of our entire crops of corn and turnips taken off by these *trespassing* gentry; and it is but a few years since, that Mr. Daniel Carroll, of Duddington, who owns four or five hundred acres of

land in this vicinity, which was then all in woods, had nearly all the timber cut down by a set of scoundrels, who were so bold and daring as to drive off the individual who was placed there as a guard to prevent such trespasses. This offence was perpetrated in open day light with perfect impunity. We recollect to have heard, at the time, of one fellow who had 40 hands engaged in his unholy work; and as we were then employed in conducting a daily paper, we took occasion to speak through its columns, in terms of deserved indignation at so glaring an act of villainy. The paragraph was so graphically drawn, as to attract the attention of the ruffian, who, as we expected, paid us a visit, accompanied by one of his hands.—It was late at night and we were alone in the office. Upon this occasion the following dialogue ensued:

Trespasser.—I understand there is a very severe paragraph in your paper against me to day.

Editor.—This (taking down the pile and pointing to the paragraph) is probably the article you allude to, and if you have been stealing Mr. Carroll's wood, you are the person alluded to.

After reading the article, the trespasser and his accomplice, walked off, the former observing, "I thought I would call and see."

But what did our paragraph avail Mr. Carroll?—Nothing. The law had screened the offender, and he went on reckless of an action of trespass, for he knew he had nothing to lose.

LAND MEASURE.

BALTIMORE, Jan. 29, 1838.

To the Editor of the Farmer and Gardener:

DEAR SIR—Giving you all possible credit for the industry and zeal you display in conducting your journal, you must permit me to state, that your several tables, which have appeared in the past and current volume, shewing the acreable product of *corn* and *roots*, do not appear to me to be founded on correct principles—at all events, after many trials, I never could get any of them to agree with my calculations. Figures you know are stubborn things, and do not *lie*, unless erroneously stated. Now being a young farmer, and, therefore, full of zeal, perhaps more so than of knowledge—as your tables have severally appeared, I have regularly went to work—as Jack Downing would say—to figure them out, and in no one instance was I successful. I have always understood that 70 square yards made an acre, and as 70×70 , and its product being multiplied by 9, (the number of feet in a square yard,) gives us 44,100 square feet in an acre. With these *data*, I have sweated and toiled, but to no effect. Now, sir, will you be so good as to tell me upon what principles, or by what rules, your tables have been formed, and I ask this the more boldly, as I am confident there are many others of your subscri-

ers, who have, like myself, been bothered and pestered by the tables to which I have alluded.

Believe me yours, very sincerely,

"A MARYLAND SUBSCRIBER."

We comply, with the utmost cheerfulness, with the request of our correspondent, and to save the multiplication of words, would observe, that he did not use the *right key*, or he would have found no difficulty in unlocking our tables. He is utterly at fault in supposing that 70 square yards make an acre—and if he were ever so correct, he is equally at fault, in multiplying the number of square yards by itself, and afterwards by the number of feet in a square yard, to reduce it to square feet; as in so doing, he converts the *square* yards into *yards square*, thus making 70 square yards just 69 times *more* than it really is. If 70 square yards really were an acre, all that he would have to do to reduce it into square feet, would be to multiply that number by the number of square feet in a yard, to wit, by 9, and he would have had the number of square feet in an acre. A little reflection will satisfy our correspondent of the justness of our views. We will illustrate it by a familiar example. If we wanted to know how many feet there are in 21 yards, *long* measure, we certainly would not multiply 21 by itself, and then by 3, the number of feet in a yard, to ascertain the number of feet that number of yards contained; and yet, we might do so with the same propriety as though they were of *square* measure; for if, of the latter, the principle would not at all be changed; as, in either case, the rule of reduction, is the *peculiar measure* applicable to the one or the other. If *square* measure, its *multiplicand* is 9, that being the square of 3, the number of feet in a yard of *long* measure, and it requiring its *triplicate* to make the *square*. If *long* measure, the *multiplicand* would be 3, because that number of feet comprises the yard. Seventy square yards when properly brought into square feet, is but $70 \times 9 = 630$ feet, whereas it takes, as we shall shew, 43,560 square feet to make an acre, as per example—9 square feet make 1 yard; $50\frac{1}{4}$ square yards 1 rod, and 160 square rods 1 acre.

Example.

$\frac{1}{4}$ 160 No. of square rods in an acre
 $50\frac{1}{4}$ No. of square yards in 1 rod

4800
 40

4840 No. of square yards in an acre
 9 No. of square feet in a yard

43,560 No. of square feet in an acre.

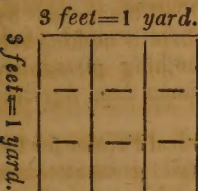
Having thus, as we trust, satisfactorily convinced our correspondent, that he is in the *wrong*,

we shall close the subject, by appending a table, which we hope will be found of interest to agriculturists generally, and to our correspondent among them; because we know from experience, that there is nothing which sooner escapes the recollection of men, than those tables they may have learned at school; frequent practice being absolutely necessary to retain them, and *that*, we are sure, but few have after they come to mingle in the busy and absorbing scenes of life.

LAND OR SQUARE MEASURE.

Square measure is used in measuring land, and any other thing, where *length* and *breadth* are considered. The denominations are *miles*, *acres*, *roods*; *perches*, *yards*, *feet* and *inches*.

Three feet in length make a yard in long measure; but it requires 3 feet in length, and 3 feet in breadth to make a yard in square measure; 3 feet in length and 1 foot wide make 3 square feet; 3 feet in length and 2 feet wide make 6 square feet; 3 feet in length and 3 feet wide make 9 square feet; this will clearly appear from the annexed figure.



It is plain also, that a square foot, that is, a square 12 inches in length and 12 inches in breadth, must contain 12 x 12 —144 square inches.

Having laid down these premises, we subjoin the table which follows, and which we think will be highly useful and therefore acceptable to most readers.

TABLE.

144 square inches—12 x 12, that is, 12 inches in length and 12 in. in breadth make 1 sq. foot
9 square feet—3 x 3; that is, 3 feet in length and 3 in breadth, make 1 sq. yard
30¼ square yards—5½ x 5½, or 272½ square feet —16½ x 16½, make 1 sq. rod, perch or pole
40 square rods, make 1 rood
4 rods, or 160 square rods, make 1 acre
640 acres, make 1 square mile

NOTE—Gunter's chain, used in measuring land, is 4 rods in length. It consists of 100 links, each link being 7 92-100 inches in length; 25 links make 1 rod, long measure, and 625 links make 1 square rod.

While we have the subject of land measure under consideration, it may not be out of place to prescribe a simple method by which farmers may measure their fields where the form is either a square, or an oblong square, and we shall do this without indulging in technicals, which might serve rather to confuse than edify. If a perfect square, multiply the length by the breadth, and divide by 160. If an oblong square, and the one end wider than the other, measure the base, then the two ends of the square, add the two latter together, divide by 2, multiply the result by that of the base, then divide by 160. The remainder in

each case, the ground being measured by a perch, will be perches. Those who may have grubbing, reaping, mowing or planting done by the acre, will find this rule serviceable.

CARROTS FOR HORSES—In answer to the inquiry as to the manner of feeding carrots to horses, we reply, that nothing more is necessary than to wash the roots clean and cut them up, sprinkling a little salt over them. Given raw in this way, they are eaten with avidity by the horse. A peck, three time times a day, at a meal, will keep him in as good order as three gallons of oats or corn a day.

For the Farmer and Gardener.

SOIL AND LOCATION FOR PLANTING TREES CONSIDERED.

Apprehending that many persons who purchase trees are not acquainted with the soil and location, naturally the best adapted to each particular species of trees or shrubs, and some trees, it has happened that for want of this knowledge, trees that I have carefully cultivated for years, on being ordered, which were carefully dug and packed, have died because not planted in a soil suited to their nature.

I therefore propose to state what in my humble opinion, would be useful to some of my customers on the above subject.

To enable us to form a correct judgment on such subjects, we ought to study nature's works; some sorts of trees (but it is the fewest number) thrive best on a stiff white clay, many others on upland, mellow loam, and other trees and shrubs will hardly grow at all, unless on wet or moist land, and some grow best on sandy land.

An hour's ride through our woods, by a person of common observation, will him at once convince of the way nature works; the White Oak abounds in stiff white clay, the Walnut, Poplar, Hickory, Dogwood and Yellow Locust are found flourishing on the upland mellow loam—but on all wet ground or damp situations, we find the Maple, Magnolia, Willow, Black Alder, Burch, Winterberry, &c., not because those trees are planted where they are found, the winged seed of some of them are carried by the wind a long distance, but they will not grow unless they light on the sort of soil congenial to their growth, which to me is very instructive, shewing the necessity of planting each sort of trees on ground suited to their nature as near as we can; however, there are very many species of trees not so particular, but ground may be improved to suit them. The greatest number of trees grow best on a deep open free mellow loam, which is the best for most of fruit trees—our climate is rather warm for the Pear and Goosberry. To obviate the blight of the first and the smut of the last, select the coolest soil and exposure, made rich, particularly for the last—and it has been highly recommended, and I think with good reason to cover the ground around these trees and shrubs, to protect them from the summer's drought and heat, with stone, rotten wood or board,

The European Cherry does best on high granite land, but not so well on lime stone or low bottom land. The Peach will thrive on all sorts of land (except a stiff white clay, or swamp,) if high and wavey, but delights in a rich sandy loam. But plant the Willow, Maple, Magnolia, and such trees in damp situations, or where the rain or other water can be led to their roots occasionally.

ROBT. SINCLAIR, Sen.

[For the Farmer and Gardener.]

AMERICAN SYSTEM OF VINE CULTURE. No. II.

It will doubtless appear somewhat awkward to offer the second number of an Essay after the lapse of more than a year; for on examination of the past numbers of the Farmer and Gardener, I find the first number on the above subject, in No. 24, of Vol. 3d, under date of Oct. 11, 1836. —My apology for so long a delay, without advertising to particulars, is, that some unexpected occurrence prevented the continuation of the subject at the time—and afterwards great press of business diverted my attention from resuming it.

About the above named period, thinking it advisable not to let what I conceived the great advantages of a new system of grape culture in our country, stand for credence abroad on my own declarations merely, I applied to some of my intelligent acquaintances that were familiar with my establishment for a certificate, who gave me one accordingly. And being reminded lately, by my friend Mr. Roberts, that some of his readers had intimated a wish that I should redeem my pledge of unfolding the "American system," I concluded to take the said certificate without the delay of obtaining a new one, and after it was introduced, as giving a general outline of the "System," to add such observations as might tend to throw the additional light of the result of experiments till the present time.

The following is a copy of the certificate:

"Brinkleyville, Halifax Co., N. C. }
October 12, 1836. }

"It is hereby certified, that we have frequently visited the vineyards and nurseries of our neighbor Sidney Weller, and that we, in common, with other visitants can testify to the very flourishing condition of all. The vines are doubtless of the choicest kinds cultivated in our country; such as the Isabella, Catawba, Scuppernong, American, Madeiras, &c.; and some of native growth brought under regular cultivation by Mr. Weller. One of these in particular, the Halifax, (so called because a native of this county,) we consider a grape of very superior order, and that it need only to be generally known to have a place in all American vineyards, and choice selections for grape fruit. The vine is of very luxurious growth on any ordinary soil; a sure and abundant bearer; fruit large and fine flavored, and never rots. In short this grape is excellent either for table use or wine

"Mr. Weller's mode of cultivating vines is somewhat peculiar. It is briefly this;—to pluck off the laterals, and trim in season of growth; so as to give immediate vigour to the main stem or stems, in not suffering branches to expand till 6

or 8 feet high. The length of the vine is not checked, but at the above height is suffered to extend itself far and wide. After the vine is trained to a stake, or generally after the second year, cut cedar or sassafras saplings, with upper limbs untrimmed, succeeds; and next, posts and scaffolding. Round stakes of different sizes, sharpened, and used in a wet state of the ground, greatly abridges the labor of inserting the supports of the vines, or the stakes, saplings, or posts.

"Elm bark, obtained in the spring, and at any time fitted for use by soaking, is found the most convenient and durable for ties.

"The uncommon forwardness of his vineyards, for the time planted, and their abundant fruitfulness, convince all visitants of the great advantages of what Mr. Weller calls the "*American System of Vine Culture*." The present season, there were seen in parts of his vineyards, Scuppernong, Halifax, Isabella, Catawba, and other kind of vines of last year's planting, from small rooted ones, or those of about 16 months cultivation, extending above stakes 8 and 10 feet high, and bearing severally, 20, 30, 40, or more clusters of fine ripe grapes. And vines of longer standing, in other places of corresponding size and bearing.

Mr. Weller's nurseries (yet young or of recent rearing) are of variously selected and choice kinds of fruit. But his New Chinese Mulberry trees particularly, attract attention. Some of these are of quite large size, considering the time planted; and all of luxuriant growth and beautiful appearance. We would here add, that independent of the great superiority of *Morus Multicaulis* for silk, it makes the most pleasant shade, and finest appearance as an ornamental tree of moderate size.

EATON PULLEN,
FRANK HAWKINS,
JAMES A. CHEEK,
HENRY M. PURNELL,
BENJAMIN JOHNSON,
TIPPO S. BROWNLOW,
ROBERT VINSON."

A more flattering testimony could doubtless be obtained of the above signed; others of the numerous visitants, called at my establishment in time of last vintage, and saw the further development of the "*American System*." But I trust the above will be considered to answer as well the purpose of evidence.

The certificate quoted details some particulars of what I may call the middle part or period of conducting the *system* recommended. Particulars of the first and concluding parts of conducting it, I wish to detail ere long in the columns of the *Farmer and Gardener*. But I perceive my limits in this number forbid other than a few concluding observations. Every system of farming in general, or any particular branch of culture must be considered *unique*, or consisting of parts or particulars; any of which neglected, or erroneously conducted may thwart or disconcert the whole plan. Hence the prejudice often rising against *book farming* and any *new objects* of agriculture. Directions for conducting new pursuits of culture are often imperfectly detailed, and as often perhaps misunderstood or neglected, when fully given. And it is yet for me to find any excellent pursuit or attainment among men, pertaining to Agriculture, the first and greatest of arts; or others,

that has not obstacles to conquer, or difficulties to surmount, by care and industry from the commencement to the consummation. It is not for those that would avoid the miserable *ennui* or listlessness of the *idle*, and would be happy in the laudable active pursuits of human life to forego care and labor; but to apply them to the best advantage, and to the most worthy objects. And what object more worthy an *American*, we ask, than that of making a very profitable business of helping to free his country of a foreign drain of millions for adulterated wines, and of introducing instead thereof, pure native juices of the grape; and thereby abating the dreadfully destructive vice of intoxication?

As future themes I propose to treat of the planting of an American vineyard to the best advantage—of the plan of *laying by a vineyard*, (as they say in the *South* of the last working of corn) that is, after the vines are too large to cultivate among them, to cover the ground over thick with leaves, pine, straw or boughs or other litter, instead of ploughing or hoeing among them any more; and lastly, of gathering the grapes and making the wine. Another theme I propose to introduce, is that of naming the choicest kind of vines, and instituting a comparison between them, so far as they have come under my observation and experience.

SIDNEY WELLER.

Brinkleyville, Halifax co., N. C. Jan. 27, 1838.

We have thought it would do a service to the cause of careful and liberal cultivation to republish the *Treatise* of George Adams, first published in London in the year 1816. It was called a new system of Agriculture, for which the inventor obtained Letters Patent from the Crown; and his books were sold at one guinea per piece. He aims to show the extraordinary amount of produce which can be obtained from a single acre of land under a proper system of cultivation, and manuring. He maintains that its productive capacity is equal to the keeping of 24 Neat Cattle or 240 Sheep through the year. We deem it a great piece of extravagance and romance; and we publish it with no view to endorse its statements; but with a particular view to draw attention to one great matter, the maximum product to which land can be forced; and profitably forced. This is a great inquiry. The actual amount, which can be obtained from a single acre under all the cultivation, and the best cultivation, which can be given to it, is most certainly not yet reached; this treatise will show that with us it has scarcely been imagined. The question whether there is among us occasion or encouragement for such cultivation as we here speak of is another matter. Our own mind is fully made up; that there is not a more liberal or better paymaster than the earth; and that the intelligent, skilful, and faithful application of labor is no where better rewarded than in agriculture.

A NEW SYSTEM OF AGRICULTURE AND FEEDING STOCK.

BY GEO. ADAMS.

PREFACE.—It is not the intention of the author of this work, to engross the time of the candid reader with a long preface; but to give his opin-

ion as concisely as possible of a "*New System of Agriculture*;" the most important subject, next to religion, that can occupy the minds of Englishmen. Trade and mechanics, though in a flourishing state, would soon fail, were it not for the support which they receive from Agriculture. To this subject, many learned and opulent gentlemen have of late years, much to their credit, turned their thoughts, and employed much of their time with a view to its improvement; hoping thereby to reduce the high price of every necessary of life; a consideration the more momentous at this time, when the ports that used to supply us with many needful articles are shut against us. Every one who is well disposed to his country, will give all possible encouragement to Agriculture, if, indeed he be convinced that our national stability depends more upon our own resources than any foreign aid.

The reader needs not to be informed that many of the first characters in the kingdom deserve the highest praise for the assiduity they have shown in the improvement of the breed of cattle, horses, sheep, and pigs. They have, by their unwearied exertions, convinced the world, that they cordially adopted the sentiment of the celebrated Roman Orator, who declared, that "Of all the means by which any thing is acquired, there is nothing better, nothing more liberal, nothing pleasanter, nothing more worthy of a freeman than Agriculture."

The Author has been a practical Farmer for the last twenty-six years, and has paid great attention to the different cultivation of land in most of the counties in England; and he assures the reader, that the following *Treatise* is the result of *his own* practical knowledge, without any relation to the opinions of any other writer on the subject.

The Author is convinced by experience, that in the general way of feeding stock in this kingdom, there is a waste of at least three parts of the manure that is used, and of as great a proportion of the produce of grazing land. He hopes he shall be able to prove, that by adopting the rules laid down in the following pages, three times more stock may be kept and fed upon the land employed for that purpose, than are now kept upon it; and that, consequently, two thirds of the land usually appropriated for cattle might be used for the growth of corn. By which means, it is obvious we should be less dependent on foreign markets.

Great encouragement has of late been given to the growth of fine wool (which we can produce equal to Merino;) but let it be remembered, that if we grow enough of fine wool for our consumption without importation, we shall not be able to raise enough of coarse wool for our staple manufacture, unless we augment our *keep* for an increased number of sheep equivalent to the demand for both sorts of wool. The Author, therefore, proceeds to state the *New System of Agriculture*, by which he proposes to improve the land, raise more *keep*, and feed more stock, at less expense than has hitherto been attempted by any other person.

A NEW SYSTEM OF AGRICULTURE, &c.—Every experienced farmer will allow, that a great deal of *keep* is wasted by any sink of stock, and particu-

larly by cattle and sheep in a wet season, especially in those counties where the land is naturally wet. I am convinced, that by the present mode of feeding stock, three parts of the *keep* is lost.—Every beast and sheep has six ways of destroying its *keep*; and it is well known, that to be kept in a thriving state cattle should have a sufficient quantity of food to satisfy their wants in a short time, because they fatten quicker by lying much at rest. In some parts of the kingdom, particularly near London, many persons adopt the economical plan of mowing their grass and taking it to the house. This method is a great saving to the *keep*, for as I have just observed, there are six ways by which beast and sheep destroy their *keep*, (viz.) by eating, walking, dunging, staling, lying down, and breathing upon it. To prevent these and other inconveniences, I would recommend all feeding stock to be kept in moveable houses, upon grass seeds, clover, cinquefoil, la lucerne, or any other luxuriant *keep*. These should be mown, and regularly given in sufficient quantities to the stock; by which means, not only four times the quantity of *keep* will be produced on the same land, but an opportunity will be afforded of properly disposing of the manure, made by the stock in feeding.—This is a very important consideration. I have no doubt, that upon the usual plan of feeding stock, three parts of their manure is wasted, if not entirely lost. For in or near most grazing lands there are brooks, rivers, or fords of waters. Now in the summer time, the cattle, after they have eaten enough, will get into the water and stand there the greatest part of the day; consequently the urine and dung which they void during that time will be entirely lost. And as it is well known, that nothing is more offensive to a beast than its own excrements, it is evident, that the *keep* is destroyed upon those parts of the pasture where the stock may chance to leave their dung or urine.—Again, in those lands where there is no water, the flocks and herds will be seen under the shade of spreading trees or hedges to avoid being tormented by the flies, and thus their manure will be deposited where it is least wanted, and unnecessarily wasted.

There is still another way by which the *keep* is often much injured; and that is, by the cows running about when they are bulling, and treading it so much as to occasion considerable waste. And besides the breaking of hedges by the bull, which frequently happens where there is a feeding stock of cows, accidents often befall the cows in a thriving state, causing them prematurely to slip their calves, to the great loss of the proprietor. Now upon my new plan, all these inconveniences are avoided, and to a certainty much more stock will be fed than in the usual method.

I have given a plan and dimensions for housing, both for beast and sheep; which will be found the best method of saving the manure and enabling the farmer to spread it upon the land that most needs it. How often is it seen in the spring, that a good piece of grass is so wet that the stock cannot be turned into it without considerable loss, and at the same time starving for want of proper *keep*. Now a single trial is sufficient to prove, that the produce of one acre of land given in the manner I have described, will keep three times more stock than if the stock were turned into the pasture. It must be clear, then, that the better

the crop, the greater is the waste in the usual way of feeding cattle; and that it is in vain getting a good crop if a farmer do not make the best use of it.

The method I have pointed out will be of general utility, being suitable to every county and every climate. The grand object is to shelter the stock from the inclemency of the seasons. Let any man notice how any kind of stock will endeavor to get shelter during a storm, and to find a shade from the sultry heat; and he will at once be convinced that it is congenial to their nature to screen themselves from the extremes both of heat and cold; that swampy and wet lands, or keen gravelly or rye land soils are equally injurious to them.

There are doubtless, many farmers, who neither understand the most suitable method of cultivating their lands, nor how to make the best use of the crops they produce. It is, therefore, my present intention, to point out how considerably more produce from the earth may be raised by my New System of Agriculture, than by any former method of tillage. It will only be necessary to state the proper method of cultivating a single acre of land, as the principle will of course apply to any number of acres which a farmer may choose to till upon my plan.

By pursuing the following directions, a single acre of land will produce a crop sufficient to feed in one year 24 beasts or 240 sheep.

DIRECTIONS.—In September, or sooner, let your land be well manured, and properly ploughed so as to raise a good deal of fine mould; then plant one third of an acre of the land with the large sort of early cabbage plant, viz. the late York, or Sugar-loaf; one third more in February or March with the same sort of cabbage plants; and the remaining third of the acre in February or March with the Ox, or Drumheaded cabbage plant. If the land be good, I would recommend that the plants should be set in rows three feet wide and two feet between each plant, that is, three plants in every square yard. Upon this plan, an acre of ground will require 14,520 plants, reckoning five score to the hundred; but if the land be poor, it will be advisable to set the plants thicker proportionally, according to the grower's judgment of the quality of his land. By the beginning of June, the first crop of cabbages will be in perfection.—Then put either six beasts or sixty sheep, in the manner here directed, according to the plan of the moveable houses herein annexed, either for cattle or sheep. Let the cabbages and leaves be carefully cut off, leaving the cabbage stalks cut across at the top to grow again. The cabbages upon good land may be expected to average 15 lb. apiece, which will be upon the acre 217,800 lb. or 108 ton, 18 cwt. at five score to the cwt. Allow to each beast or ten sheep, 13 1-3 cabbages and 1 1-4 lb. over, or 200 lb. every day and night, which will be 1200 lb. a day and night for six beasts or sixty sheep; in eighty-four days or twelve weeks these will be fat. Then put up six other beasts or sixty more sheep, which will fatten in the same time and manner, viz. at the end of the half year. Eighty cabbages will have been consumed daily, amounting to 14,520 cabbages, just the number planted upon the acre; which, taken at 15 lb. apiece, amounts to 108 ton 18 cwt. at five score to cwt. so that the feed of twelve beasts or 120 sheep stands as under:

Days.	Weeks.	Cabbages.	lb.	T. C. lb.
For 84	or 12	6718	at 15 apiece	50 8 0
— 84	or 12	6718	at 15 —	50 8 0
— 13 1-2	or 2	1084	at 15 —	8 2 0
181 1-2	26	14520	45	108 18 0

As soon as you begin to clear off a few rows of cabbages after the 1st of June, spread the dung and urine carefully over the ground, leaving all the cabbage stalks, which will soon sprout again; then with a small caff or hoe, kibble the ground regularly over so as to cover the manure, and sow turnip seed amongst your cabbage stalks as you clear off the cabbages, and continue to do so till you have gone all over the ground the first time. About the 1st of November you will have another crop of *keep* as good as the first; and then as you clear off all the cabbage sprouts and turnips, you must again properly apply your manure all over the land as before; which is now either to be ploughed or dug, and planted as at first. Thus you will have a regular succession of good *keep*; and if the winter's produce be what may be expected from good management, the same acre of land will feed in one year 24 beasts, or 230 sheep. This, like all other crops, will of course vary with the season; but if the weight here mentioned be produced, the number of cattle above stated will hardly get through it. In case of a failure in the winter, a little hay or corn may be given to supply the deficiency.

I shall conclude my remarks with giving an estimate of the respective expenses attendant on the cultivation of the land, and the erection of suitable buildings: I shall also give a calculation, known to few, of the weekly increase of a beast or sheep, from a certain quantity of nutritious food. As I have reason to believe that this is the first calculation of the kind ever offered to the public, I trust it will not be unworthy of general attention.

I would recommend the houses built for the cattle to be 10 feet long and 5 feet high, with a large trough or manger to hold both meat and water, which are to be given occasionally at two folding doors made for that purpose to open in the front. The bottom to be not very closely laid, in which some holes are to be bored for the urine to run through from under the beast. A fall from the fore to the hind part of about three inches, may be made by putting into the sloats at the fore part near the top of the sills, and near the bottom at the hind part. The houses are to run upon four cast iron wheels, with iron axletrees. The wheels should be eighteen inches high and two inches wide in the strake; and each house is to stand upon a cast iron railway of about half an inch thick, two and a half inches wide, turning up half an inch on each side. By having two spare cast iron railways, each about six feet long, the houses may easily be removed from place to place by alternately laying down one railway and taking up another.

The sheep houses, when the land is wet, and it is necessary to keep them on lands or ridges, should be made five feet by five feet in the clear; three feet high in front, and two and a half feet high at the back part. They are to be covered with leather-edged boards, by which means there will be a sufficient fall on the roof to shoot off

the wet. Any common timber will do for the sills, sloats, uprights, and wall plates, but the top and bottom should be good; the latter being made convenient for carrying off the urine, that the sheep may lie dry. All the sides and cratch may be made with small round sticks. The cratch is to be made in the door at front; and from the framework of the doors some boards to outspeech as they go upwards. A light falling door is to be made at the top for putting in the meat. This machine, which will hold four sheep, is also to run upon iron wheels and railways. But for lands that are drier and commonly worked, level I would recommend the sheep houses to be made five feet; the roof to fall with folding door, and to have a cratch, &c. &c. as the other sort. A machine of this size will hold twelve sheep, and may easily be removed from one place to another. I have made another house, quite close at the bottom, so as to fall six inches at the hind part, with a trough behind to catch all the dung and urine, which are to be mixed and put upon the land in a liquid state: this is best calculated for ewe sheep. Every person upon trial will soon find the good effects of manure thus properly applied. I am convinced, that in many instances land is improved by bearing crops, and will be enriched by this method, always producing fresh and regular keep for the stock.

As ten small sheep will eat as much meat as one beast of a small size, so ten large sheep will consume as much as one large beast, and will gain proportionably nearly the same in weight, with equal quantities of food.

There is a regular proportion between a given number of beasts and sheep, let the price of the markets be as it may, as it will be seen by the following statement:

1 cow, at 5 score per quarter, the whole weighing 20 score, or 400 lb.	is equal to	10 sheep, which at 10 lb. per quarter, will weigh 20 score, or 400 lb.
1 cow, 7 score 10 lb. per quarter will be 690 lb.	is equal to	10 sheep, at 15 lb. per quarter, weighing in the whole 600 lb.
1 beast, 10 score per quarter, will be 800 lb.	is equal to	10 sheep, at 20 lb. per quarter or 800 lb.
So if 1 fresh cow, 5 score per quarter, cost £10,	is equal to	10 sheep, at 10 lb. per quarter, will cost £10.
Or if 1 cow, 7 score 10 lb. per quarter cost £15; or 1 beast 10 score per quarter, cost £20,	is equal to	10 sheep at 15 lb. per quarter, will cost £15, and 10 sheep at 20 lb. per quarter, will cost £20.

The proportion of sheep to the number of beasts which any land properly managed will fatten is as ten to one; that is, for every single beast, ten sheep; or for ten beasts, one hundred sheep, and so on.

According to my calculations, one acre of land properly managed, will feed 24 beasts or 240 sheep, in one year. Now supposing we allow for each beast or ten sheep 200 lb. of good wholesome nutritious food in a day and night; and that each beast or ten sheep get only four pounds in weight in that time; this will be an increase of 28 lb. a week, or 16 score 16 lb. in 84 days or 12

weeks, the time I allow for feeding. Allowing, then, an average profit of expence per lb. each beast or ten sheep will produce a clear profit of £8. 8s. Total profit of 24 beasts or 240 sheep will be £201 12s.

The expense of cultivating an acre of land will be as follows:

	£.	s.	d.
Rent of one acre of land,	2	5	0
Tithe of ditto,	0	15	0
Ploughing and dibbling,	2	0	0
Taxes,	0	10	0
Plants, turnip seed, and planting,	10	10	0
Labour and looking after the stock,	10	10	0
Allowance for lime,	2	0	0
Allowance for the houses, which may cost £10, but which will last five years; yearly average, therefore,	2	0	0
Interest for use of buildings,	0	10	0
For hay, in case of bad weather in the winter to prevent getting in the usual feed,	6	0	0
	37	0	0

From the profits of one acre of land,	201	12	0
Deduct total expenses as above,	37	0	0

Leaves a possible gain of 164 12 0

As I have made a moderate calculation of profit and a very handsome allowance for rent and other expenses, every unprejudiced reader must be convinced of the advantages of this New System of Agriculture. Not that I mean to say that every acre of land will produce the same weight of keep; for it is readily admitted that there is a very great difference in the fertility of soils; but I will affirm that much depends upon management, and that the System now proposed will be found upon trial vastly superior to any other ever yet acted upon. Even this plan is, doubtless, capable of improvement, and it will give me great satisfaction hereafter to see it improved by any gentleman who may pay due attention to it.

It will be a great consolation to me, if by this information I have been in any measure able to serve my country; but I naturally hope, nevertheless, to receive some remuneration for the great anxiety, trouble, and expence to which I have been subjected by actual experiment to reduce my theory to practice. I am persuaded that my plan will not only produce greater crops than any other System, but also with greater certainty render different kinds of lands more fertile than any other method of cultivation.

For this discovery, His Majesty has been graciously pleased to grant me his letters patent; which patent was attended with very considerable expence. I will give every encouragement to all well-disposed persons who wish to raise plenty to supply the wants of their fellow creatures, by means of the portable houses, for which I have obtained the patent.

If stalls be fixed at any part of an acre of land, the expence of carrying the keep and properly disposing of the manure made by the stock, will at a moderate calculation amount to £15 per acre per annum, besides the injury done to the land there-

by in a wet season. I will therefore permit any person to work any number of portable beast houses, upon the following terms, viz: for every such house not holding more than one beast at a time, 10s. per annum; and for every portable sheep cot not holding more than five sheep at a time, 5s. per annum; and for every such cot holding not more than ten sheep at a time, 10s. per annum, and so in proportion for any greater number of sheep each cot may contain. And I hereby give notice that all such portable houses shall have fixed upon them, a plate with the following inscription, "*Adams' patent portable beast houses and sheep cots*," which shall be signed only by the patentee. An agent will immediately be appointed in every county town, to grant the proper certificates (signed only by the patentee) to any person requiring and paying for the same; and likewise to sell the proper plates to be affixed to each house or cot, specifying the number of beasts or sheep allowed by the patentee's certificate.

The late Editorial Convention in Virginia, adopted some very good rules. The following opening address was delivered by the President.

MR. RITCHIE'S ADDRESS.

Gentlemen—I thank you for the honor you have done me; though I am not vain enough to ascribe this distinction to any thing else than my years. I have long passed for the "veteran," and by courtesy for the "venerable" Editor of the Enquirer—and although the epithet might have been given to me long before I deserved it, yet I am sensible that years are giving me some title to it, and that every day is only calculated to confirm it. I am sure, that none of you, gentlemen, will envy me the advantage of my years, or the pretensions they may give me to the honors of this chair.

But with all my experience, I have acquired but little knowledge of Parliamentary law. Fortunately I shall have but little occasion for it. Our Convention is too small to encourage the vehemence of debate. No long or violent discussions are likely to disturb the order of our proceedings—and I may safely trust to the spirit of harmony for which you know our caste has been so long and so justly celebrated, for our protection against disorder.

We have assembled here, gentlemen, under the hope of improving the character and condition of the important profession of which we are members. The press is indeed the "Great Magician" of the age. Wherever it is established, it is diffusing light all around it. It is promoting the progress of every art. It is extending the sphere of every science. In our own country, it is a necessary agent—and if properly conducted it would be an inestimable instrument. How can a free government be wisely administered without it? How can a free people acquire that knowledge of facts and of characters, which is so necessary to the proper selections of their agents? A republican government presupposes indeed, that the people can govern themselves—and how can a people continue free, unless they are enlightened? The press is the great instrument of information. It is indeed an essential part of the composition of a free society, which is scattered over so exten-

sive a territory as that of the U. S. The fact verifies the theory. Scarcely do we settle a village in the "far west," scarcely have we erected an inn, a blacksmith shop, and a store, before our inquisitive countrymen begin to think of a press. It has been pronounced, "The art preservative of all arts." So familiar are we with its value, that we almost wonder how the ancients could have got along without it.

But, sirs, the Press is generally of more benefit to others than it is to its own conductors. No profession is more irksome or laborious. None imposes such serious sacrifices as this does upon the conscientious editor. His labors are "still beginning, never ending." He is constantly rolling the stone of Sisyphus up the mountain; and it is forever rolling back upon him. He is toiling day and night. He is literally a prisoner in his own castle. Exercise and fresh air are too frequently denied him. You, who know "the secrets of your prison house," can only know what exertions it requires, and what privations it imposes upon you. You know, for you only have seen and felt it, to what cares both of body and mind, he is subjected—how tedious are his vigils; how anxiously he sits by his solitary fire, in the depth of the night, listening for the returning footsteps of the poor Devil who is bringing him the proofs of the manuscript which with the spider's ingenuity, he had been compelled to spin out of his own brain.

And where is the compensation which he reaps for so many sacrifices and services—for so severe and laborious an exercise, of so important a profession? You must have been more fortunate, gentlemen, than I have been, if you have acquired the treasures of Cræsus, or the purse of Fortunatus. I have served as long an apprenticeship as any of you; but I can lay claim to no such acquisition. We are rich only in our Ledgers. We never are—"but always to be blessed." We are the martyrs to that expanded system of indiscriminate credit, which has overspread our country—but no other class of society has suffered as much by it as we have. Our Cornucopias are filled; but not with gold and silver, nor even with bank notes, but with our subscriber's bills—it is time for us to change the system and correct the evil. This is one of the present objects, for which we have convened here to-day. We must adopt some measures to prevent the multiplication, or promote the collection of the debts with which our offices have been so sorely taxed. We must do that justice to ourselves, which so many others refuse to us. We have not met here, gentlemen, to combine against society, by raising our wages, but to compare our respective situations, to examine the evils under which we are all laboring, to devise some measures of relief, to advise each other, and to come to some arrangements for the collection of our debts.

But this is not all, gentlemen—nor is it the most important duty which we have to perform. The press is not only useful to society, but it should be profitable to its conductors, and may I not add, that it should be honorable to its conductors. It should be a source both of fortune and of distinction. It is so in Europe. In Paris, whose journals cannot compare with our own, either in dimension, in ability, or in independence, some of her principal journalists are among the highest dignitaries of the Government. The Press is indeed a passport to power.

The profession is rising in England, not only in emolument, but in dignity. One of the most distinguished journals in the world is the "Examiner" of London, and you may recollect in the last July No. of the "Edinburg Review," that the high character of its editor, Mr. Fonblanque, has obtained for him the honor of a long and complimentary article in the first Periodical of the age. The Reviewer pronounces "his style to be clear as Swift's, and sometimes as graceful as Addison's, whilst it is more figurative in expression, and much richer in anecdote and allusion."*

And why is it, gentlemen, that our profession does not occupy that station in society to which it is entitled? Let us not disguise the fact. It is our own fault. No maxim is more true, than that he who would have the respect of others, must show that he respects himself. We have descended to abuse each other in a manner that has lost the respect of the world. We misrepresent each other's motives—we heap opprobrious epithets upon each other's heads—we do not recollect that violence is not energy, and that virulence is any thing but dignity. How can we expect to be treated as gentlemen, if we do not conduct ourselves as gentlemen? Each one says indeed, that is not his fault. He tries to justify himself by pleading self-defence. But whosoever be the fault, the effect is undeniable, that in this eternal warfare of attack and of recrimination, the press has lost much of its dignity, and much of that moral influence which it would have a right to claim, and would unquestionably command, in a free and enlightened country. The mischief does not stop here. The licentiousness of the press insensibly lowers the tone of private manners, and infects the character of our public councils. In this respect, therefore, the interests of society, as well as the reputation of its conductors, demand a thorough reform.

This is, gentlemen, another of the great objects for which we have convened together, and I am sure there is no well-regulated mind in this assembly which will not heartily co-operate in all the measures which may be necessary to improve and elevate the tone of the press.

You will probably have other subjects before you. Be assured, gentlemen, that I will spare no effort to facilitate the business of the Convention. I trust sincerely, that we shall part in the same harmony in which we have met.

*Among the laborers in the literary vineyard, there are none, whom as a class, it is more desirable to raise by due sympathy and favor, from obscurity and discontent of a life of neglected literary adventure, than those who devote their talent to the service of the press. Good feeling and good policy are equally violated by an opposite course. The evil of which the fastidious, and people who are far from being so, complain is, that newspapers are frequently wanting in the self respect, good faith, and courtesy which belong to good society. To this, it would be a proper answer to ask, whether scornful exclusion from good society is the appropriate remedy for this specific evil?—But one example will go farther than fifty lectures. There is nobody who need feel ashamed of a profession of which Mr. Fonblanque is a member. He may well be expected to do for his profession what Garrick and Reynolds did for theirs.—*Edinburgh Review*, July 1837.

holds did for theirs.—*Edinburgh Review*, July 1837.

EXTENSIVE SALE OF IMPORTED STOCK,
At the Old Norton Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,
On Wednesday the 2d of May next,
on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr. dam, (Layd Sarah) by Pilot; gr. gr. dam by Agamemnon. Also, *Alexander, Orion, Splendor* and others. And of and cows and Heifers, *Beauty, Primrose*, own sister to Reformer, *Prize, Lady Bowen, Brilliant*, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare *Falconet*, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcerer, Amelia, &c.

Bay mare Miss *Andrews*, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare *Jessica*, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, *Humphrey Clinker*, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.
East Bloomfield, 1st January, 1838.
N. B.—The terms of payment will be liberal to those who wish.

TO THE PUBLIC.
Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$20 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$20 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Scythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms, and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled entire all orders in the Agricultural and Seed Departments.

feb 13
JOHN T. DURDING & Co.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	70	72
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana — Alabama	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's.....	"		
SuperHow. st. from stores	"	7 87	8 25
" wagon price,.....	"	7 50	7 75
City Mills, super.....	"	8 00	8 25
" extra.....	"	8 25	8 50
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhd.	hhd.	20 50	
do. in bbls.	bbl.	4 12	
GRASS SEEDS, wholes. red Clover,	bushel.	5 25	5 50
Kentucky blue.....	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.		7 50
Slaughtered,.....	"	6 25	7 00
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LINE,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	5 50	
Ground,.....	barrel.	1 50	scarce
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 90
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 70	1 80
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	33	
" in hhd.....	"	34	
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

CONTENTS OF THIS NUMBER.

Notice of Mr. Ritchie's address—proposed bounty on wheat in Massachusetts—the law of trespass—land measure—carrots for horses—on planting trees—on the vine culture—Geo. Adams' system of agriculture—Mr. Ritchie's address at the editorial convention—prices current, advertisements.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,..... do.....	"	11	
Middlings,..... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ————No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,..... par		Farmers Bank of Virgi. 1½ 1½
Branch at Baltimore,..... do		Bank of Virginia,..... do
Other Branches,..... do		Branch at Fredericksburg, 1½
		MARYLAND.
Banks in Baltimore,..... par		Petersburg,..... 1½ 1½
Hagerstown,..... do		Norfolk,..... 1½ 1½
Frederick,..... do		Winchester,..... 1
Westminster,..... do		Lynchburg,..... 1½ 1½
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,..... do		Bank of the Valley,..... 1
Salisbury,..... 1 per ct. dis.		Branch at Romney,..... 1
Cumberland,..... par		Do. Charlestown,..... 1
Millington,..... do		Do. Leesburg,..... 1½ 1½
		DISTRICT.
Washington,..... } Banks, ½ p.c.		Wheeling Banks,..... 3a 3½
Georgetown,..... } Banks, ½ p.c.		Ohio Banks, generally 6a 7
Alexandria,..... }		New Jersey Banks gen. 5
		PENNSYLVANIA.
Philadelphia,..... par		New York City,..... par
Chambersburg,..... ½		New York State,..... 3a 4
Gettysburg,..... do		Massachusetts,..... 3a 3½
Pittsburg,..... 3½		Connecticut,..... 3a 3½
York,..... 4		New Hampshire,..... 3a 3½
Other Pennsylvania Bks. 2		Maine,..... 3a 3½
Delaware [under \$5].... 4		Rhode Island,..... 3a 3½
Do. [over 5]..... 1½		North Carolina,..... 5
Michigan Banks,..... 10		South Carolina,..... 6a 7
Canadian do..... 10		Georgia,..... do
		New Orleans,..... 12

ITALIAN SPRING WHEAT FOR SEED.

The subscriber has obtained from the Cultivator office at Albany, N. Y. a few barrels of this most valuable variety of Spring Wheat, which he will dispose of. The trials that have been made of the Italian Spring Wheat, in the States of New York, Pennsylvania, Delaware and Maryland, have established the following facts—that it yields largely, is a very sure crop, (winter killing is avoided,) will do well on poor, worn out land, but will prove much better and heavier on a more favorable soil; that land so light and worn down that it will not produce a crop of oats, will produce a fair crop of Italian Spring Wheat; and that the flour makes good light sweet bread. It is a bearded wheat, white chaff, bright yellow stem, the berry variable in color, generally of a reddish yellow. It is seldom affected with smut; if limed, never; it does well in almost any soil, from a stiff clay to a sandy plain. It may be sown in March or April, and is fit for harvest in July, producing in New York from 15 to 25 bushels per acre. It is put up in barrels, containing about 34 bushels, and the price is \$5 per bushel. Gentlemen at a distance wishing to give it a trial should forward their orders immediately to the subscriber, who will forward it by the first conveyance.

GIDEON B. SMITH, Turf Register Office,
Jan 30 Baltimore Md.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street, near Pratt, three doors in the rear of Dinsmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT; BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; BUCKWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS, WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by

JOHN T. DURDING & Co.

At their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinsmore & Kyle's. N. B. Fruit and Ornamental Trees furnished to order by giving timely notice—double Dahlia and other bulbous roots, together with flower Seed of superior kinds, furnished to order.

Feb 13

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.

Jan 30

law 3w

500 ENGLISH GOOSEBERRY PLANTS.



The subscriber early in last December received, among many other chaste articles, 500 large premium Gooseberry Plants, direct from Manchester, England, assorted cutters—Price \$4 per doz.

DOUBLE DAHLIAS.

Of this magnificent Flower, he has a large assortment of the newest and best varieties, of strong Roots in a fine state of preservation, and expects to have potted, plants of the latest imported, and his best varieties deliverable early in May, at reduced prices, according to quality, all which can be safely packed and sent any reasonable distance.

ORNAMENTAL TREES AND SHRUBS,

A large stock mostly of thrifty large size plants. MORUS MULTICAULIS and Morus Alba Mulberry, for feeding Silkworms; and Grape Vines, two and three years old, of most all the best sorts for cultivation, and cuttings of the same.

Fruit Trees assorted as usual, and Asparagus Roots.

Orders inclosed by mail or otherwise, will be carefully dug, packed and forwarded, on the most reasonable terms. See printed and priced catalogue to be had gratis of the subscriber or R. Sinclair, jr. & Co., Baltimore.

ROBERT SINCLAIR, Sen.

Feb 6

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MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 43.

BALTIMORE, MD. FEBRUARY 20, 1838.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, FEBRUARY 20, 1838.

LEACHED OR SLAKED ASHES AS A MANURE.

Whilst nearly all who have tried ashes as a manure, bear testimony, in the strongest terms, to their superior efficiency as an improver of the soil; still we occasionally hear the question mooted, whether they do possess any virtue as a manure? This is the more to be regretted, as even experience, itself, would seem to have but little, if any influence in settling a question of the deepest importance to every agriculturist living near any of our large cities, or on navigable water leading to them. To our mind, leached ashes will bear hauling by land several miles, and that, even when the first cost is added to that of transportation, they will be found to be a *cheap* manure. When they can be transported by water communication, in quantities, and at less cost, they are the more valuable; and, therefore, those who may reside on navigable rivers, convenient for their procurement and delivery, should make it a point of duty to themselves, and their country, to obtain them, as there can be no doubt that, in addition to their efficacy in promptly restoring exhausted soils to a state of desirable fertility, they are, next to lime, among the most lasting manures ever applied to the earth. Among their other good qualities, they are equally beneficial when applied to *clays*, as to *sands*, and *sandy loams*—disintegrating the tenacious particles of the first, thus rendering them friable and easy of being worked; and imparting body and consistency to the two latter, so as to give to them a greatly increased capacity for retaining manures. To cold clays, they are particularly adapted by their warming qualities, infusing, as they do, an active and highly beneficial principle into bodies, which, otherwise, might have remained inert, if not noxious to healthful vegetation.

As a top dressing to meadows, when applied at proper seasons, and in proper quantities, they are found productive of the happiest effects.

Applied to *corn*, *wheat*, *rye*, *oats*, *buckwheat*, *turnips*, *potatoes*; indeed, to almost the entire vegetable family, they are eminently useful. For *turnips* and *corn*, we know of no manure that can compare with them in the degree of benefits resulting. On *corn* they have been known, even when applied in minute quantities to the hill say, a gill to each, to produce the most wonderful effects.

Having spoken of the proper seasons of application, and *proper quantities*, it may not be inopportune to remark, that on meadows they should be spread in early fall, winter, or spring, when the ground is dry and firm, and when there be no danger of poaching—to all grain crops they should be applied to the surface and harrowed in at the time of seeding: the *proper quantity*, we conceive to be, on *clays*, 200 bushels: on *sands* and *loams*, from 100 to 150 bushels to the acre.

Wood ashes, we have seen it stated consists principally of potash and vegetable alkali, united with carbonic acid,* and that these substances have been proved by analysis, to exist in most plants. Now, if these be the principal ingredients in the composition of ashes, as they are known to be promotive of the vigorous growth of plants, may not ashes, besides possessing the mechanical qualities we have before ascribed to them—of decreasing the tenacity and warming clays—and of giving tenacity to sands and loams—We say, may they not, also, contain, to a considerable extent, the principle of nutrition? We incline to this belief; and we think we are borne out in our opinion by the fact, of the astonishing difference in *product* they are known to effect, even when used in small quantities. The mere disintegration, or the division of the particles in the one soil, or the conferring *substance* upon the other, could not, if they possessed no other than stimulative powers, impart such lasting vigor, and give such productive capacity to plants, as are invariably witnessed. For *stimulation* without *nourishment*, good and wholesome nourishment, would, by mere force of its own action, bring about repletion, and consequently, premature decay and dissolution. Is vegetable *alkali*, combined with

carbonic acid and potash, essential to the growth of plants? Certainly, or we would not, by analysis, be able to find them forming the component parts of *healthy* plants. We admit, that the lacteals of the roots even of *healthy* plants, might take up these substances in their liquid or gaseous forms; but then, if they did not contain congenial *food*, but were merely *stimulative*, the very *excess* of the latter, would produce death in plants, as do alcoholic stimulants in the human subject.

THE WORK GOES BRAVELY ON.—We observe that a second act of incorporation for a Silk Company has been introduced into the Legislature of this State the present session. The one we spoke of a few numbers back, was for Kent county, and the present one is to be located in Caroline county. The *Eastern Shore* of Maryland is really going ahead; and we rejoice to see it; for her citizens are eminently deserving of the choicest gifts of fortune. This, we believe, is the fourth Company formed on that peninsula, and as yet, there is none on the *western shore*. Why this is so, we cannot divine; but this we do know—that in taking the *lead* in the Silk culture, our peninsula neighbors manifest their sagacity as well as their patriotism; and we should not be surprised, if the lukewarmness which now prevails on this shore, and which has and continues, to repress agricultural enterprise, and stay the march of improvement, should be permitted to hold its sway a few years longer—we say, we should not be surprised to find, so far as agricultural products are concerned, that the western shore will be outstripped, in the value of commodities raised for market, by their keen-sighted brethren of the peninsula, whose laudable exertions in behalf of the Silk culture, promises to be so fruitful of blessings. We have no sectional prejudices, either *local* or *national*: as a Marylander, we look upon the people of the whole State as one family, bound together by identity of ties, of interests, and of feelings; and hence it is, that we feel a deep and abiding concern to see our citizens, from all parts of our commonwealth, equally zealous in promoting good works, and in availing themselves of the advantages of those improvements, which are in-

*Gypsum has also been detected in ashes.

trinsically worthy of being fostered. But if self-interest, and those nobler motives, which incite men of generous temperaments to the achievement of deeds evincive alike of public spirit and love of country, have lost their virtues, *hope* itself, that great moral power, which teaches the soldier fortitude, and arms him with courage amidst the din of battle and the clangor of arms, may ere long depart from among us, and take up its abode where its holy promptings are sure to meet with a more friendly response.

Before you lay down this paper make the resolution to procure us an additional subscriber among your neighbors and friends. You have no idea how easy a matter it will prove to do so until you make the experiment, nor can you conceive the *solid benefit* which would result to us, were each of our subscribers to follow the good example which, we trust, you are about to set.

We insert in to-day's paper the proceedings of the Agricultural Society of New-Castle County, Delaware, which has been communicated to us for publication. In complying with the request for insertion, we must be permitted to express our *regret*, that political topics were permitted to be mingled in the proceedings of the Society. While every farmer must be presumed to entertain in common with his fellow-citizens, honest and well defined opinions upon all subjects connected with the general polity of the government, we do not think that the proper place for their expression is among proceedings of this kind. Agriculture, is with us a *passion*, and we inwardly rejoice whenever we see manifestations of zeal among its followers; but, in our opinion, party politics should never be permitted to enter into the considerations of an agricultural society, as all ebullitions of that kind but serve to excite feelings subversive of that harmony and brotherhood, which should prevail, to render the objects of its founders effective.

We have felt it due to ourselves to enter our dissent from the party coloring so manifest on the face of the proceedings; and hope that all future meetings may scrupulously avoid a similar error. Having thus discharged our duty we will express the pleasure we felt on perusing the other parts of this paper, in which we behold a spirit of improvement abroad, which if persevered in, cannot fail to secure to the people of Delaware the possession of a degree of comfort and happiness that but few can imagine the intrinsic value of.

We take pleasure in transferring to our columns to-day the very able Report of the Committee on

Agriculture in the Massachusetts' legislature recommending the grant of a bounty on wheat. As we stated in our last, the bill which accompanies this report, proposes granting a bounty of \$2 to every person who shall raise 15 bushels of wheat, and 5 cents for every additional bushel raised by such person; the bill also grants a premium of \$100 to such person as shall raise the largest crop of well cleaned wheat in the state.

The facts and reasoning of the report are at once interesting and sound, and will, we sincerely hope, tend to excite in every legislative body in the country a becoming zeal in behalf of agriculture.

GREAT YIELD OF WHEAT—Mr. James Hawes, of Corinna, Maine, on the 27th of May last, sowed 5 pecks of spring wheat on one acre of burnt land—two pecks red bearded and 3 pecks white bearded, mixed together, and received from it 41½ bushels of good wheat.

We learn this fact from that excellent paper, the *Maine Farmer*; but would have been better pleased if Mr. Hawes had detailed his manner of preparing the ground. In all statements of the kind, it appears to us that the public would be benefitted, if the mode of preparing the soil, quantity and quality of manure used, and the mode of culture, were particularly stated. To know that an individual has raised a large quantity of any particular product, however conclusive it may be as to what *may be done*, is certainly defective in the kind of information which should be given, as the great thing to be desired, is, *how* is such yield to be secured.

INTERESTING TO FARMERS—A bill has passed the assembly of New Jersey, which establishes the bushel of wheat at 60 pounds; of rye and corn at 66; of buckwheat 50; of barley 84; of flaxseed 54; and of clover seed 60. Both buyer and seller thus know precisely upon what they deal; and uniformity is established. Heretofore the difference in different parts has been several pounds in the bushel, and every individual buyer had a right to make his own standard.

We think it would tend to promote the interest of agriculturists generally, if the several state legislatures would not only regulate the above enumerated articles, but many others, by weight, especially most of the root crops. We have before stated it to be our opinion that potatoes should be sold by weight, and gave a very striking instance of injustice which had been done to a seller of a lot, by the loose manner in which the measure had been effected, and from information in our possession, we are induced to believe that

that instance was very far from being an isolated one.

IMPORTANT TO FARMERS.

A few weeks since we published a communication from a correspondent giving the results of an experiment in planting corn, by Hart Massey, who called upon us to correct an important error in said communication, and invited us personally to examine the said field, which we accordingly did, and now give the results of our observation.

Mr. Massey took the seed corn with which he planted the field, and soaked it in a solution of *sal nitre*, commonly called saltpetre, and planted five rows with the seed thus prepared. The remainder of the field, we believe, was planted by the same individual. Now for the result. The five rows planted with corn prepared with saltpetre will yield more corn than twenty-five rows planted without any preparation. The five rows were untouched by the worms, while the remainder of the field suffered severely by their depredations. We should judge that not one kernel saturated with saltpetre was touched, whilst almost every hill in the adjoining row suffered severely. No one who will examine the field, can doubt the efficacy of the preparation. He will be astonished at the striking difference between the five rows and the remainder of the field.

Here is a simple fact, which if seasonably and generally known, would have saved many thousands of dollars to the farmers of the country in the article of corn. It is a fact which should be universally known, and is in all probability one of the greatest discoveries of modern times in the much neglected science of agriculture. At all events, the experiment should be extensively tested, as the results are deemed certain while the expense is comparatively nothing.

Mr. M. also stated to us the result of another experiment tried upon one of his apple-trees last spring. It is a fine thrifty healthy tree, about 25 or 30 years old, but has never in any one year produced over about two bushels of apples. While in blossom last spring, he ascended the tree and sprinkled plaster freely on the blossoms, and the result is, that it will this season, yield 20 bushels of apples. Now if plaster will prevent the blast, it is a discovery of great importance. Mr. M. was led to make the experiment by reading an account of the production of trees adjoining a meadow where plaster had been sown at a time when there was a light breeze in the direction of the orchard, the trees contiguous to the meadow bearing well, whilst the others produced no fruit.

Watertown Standard.

We have no doubt that a solution of *saltpetre* is a most excellent soak for corn; but the *discovery* does not belong to Mr. Massey; for it has been used for many years by various persons throughout the United States. Solutions of *saltpetre*, *copperas*, *soot*, *common ashes* and *lime*, have been severally used, to our knowledge for thirty-five years. While we believe the *saltpetre* soak a good one, we can scarcely give credence to the fact above assumed, that the small quantity of the *nitre* taken up by the kernels of the corn, could

have wrought so astonishing a difference in the product as stated. We all know that salts of all kinds are offensive to the insect tribe, generally, as well as to crows. In this way we can very readily believe that the cut and grub worms, and crows, may, in their discriminating tastes, have passed by the soaked seed, and in this way it is, that the exemption from their ravages is to be accounted for. We can believe, too, that even the small portion of the saltpetre imbibed by the grain, may have promoted the earlier germination of the seed and growth of the plants; but a few days we think must have suspended the benefits derivable therefrom.—*Editor Farmer and Gardener.*

LARGE HOGS.

Mr. M. McILHENNEY, a farmer of Loudoun county, Virginia, brought to Georgetown market last week, two Hogs of the *Chester breed*, which he sold, one for \$50, and the other for \$35. The first weighed 730 pounds, and the latter 545 lbs.—*Nat. Int.*

We should like to know the ages of these hogs, as the time it takes to bring these animals to maturity is a matter of great importance to all breeders.—*Ed. Farm. & Gard.*

The farmers of Monmouth county are about to form an Agricultural Society. This movement is worthy of imitation in every county in New Jersey. Much benefit results from similar societies in New England, and of so much importance are they considered, that legislative aid is given in several States.—*Belvidere Apollo.*

We are pleased at the above announcement, and will go farther than our friend of the Apollo. We say that this movement is worthy of imitation by every county in the United States where a society does not already exist.—*Editor Farmer and Gardner.*

We had scarcely penned the above note, when on opening the Westchester Village Record, we observed a call of a meeting of the Farmers of Chester and Delaware counties, Pa., for a similar object. This augurs well.

ENCOURAGEMENT TO THE SILK CULTURE.—Mr. L. F. Allen, has reported a bill in the Assembly of New-York, "to encourage the growth and manufacture of silk," which provides for the payment of 10 cts. per lb. from the State treasury, by way of bounty, upon every pound of Silk cocoons raised within the State of New York, (which, as 9 lbs. of cocoons make a pound of raw Silk, is equal to 90 cents per lb.) and 50 cts. per lb. for the reeled Silk. The consumption of imported Silks in the United States in 1836 is estimated at \$15,000,000.

SPRING WHEAT.—Spring wheat should not be sown before the frost is thoroughly out of the ground. Any time in April, from the beginning to the 20th, will answer.

We are indebted to the politeness of an esteemed friend for the following tabular statement of the comparative value of flour. It was compiled by the intelligent Keeper of Baltimore City and County Alms-house, from a regular record kept by him to ascertain the relative value of fine and superfine flour. The great increase in the weight of the best *superfine* flour, over *fine*, when made into bread, furnishes a very interesting fact to those who, as every one should, study household economy. It will be seen that while *fine* flour, and *inferior* superfine, when baked into bread, only increased 20½ and 19 per centum, *good superfine* increased 30 per centum, making a difference in favor of the latter of nearly one third over the first, and rather more than that rate over the second.

We think it fortunate for this institution that it has a *keeper* so competent, whose zeal is so honorably exemplified in the tables below, and while we pay this justly earned compliment to him, we think there is one other *experiment* which the Trustees would act wisely in entrusting to his management. We mean the introduction of the Silk culture at the Alms House as a branch of husbandry. With the force there, and 25 acres devoted to the culture, we are very certain he would be able to relieve the city and county of the entire charge of its support. We merely throw out this suggestion, for the action of those whose province it is to husband the interests of the institution, confiding in their patriotism to do whatever is correct in the premises.

ALMS HOUSE, Baltimore Co., Jan. 9, 1838.

R. I. Cross, Esq.—*Sir*,—In compliance with my promise, I herewith send you the following tabular statements of the comparative value of flour as it has been found by a careful examination at this place, which I commenced in October, 1836, at which time we were using Baltimore *fine* flour with about one-sixth of corn meal. A like proportion of corn meal has been used ever since. From Oct. 25, 1836, to Jan. 3, 1837, comprising a period of ten weeks, you have exhibited the amount of bread stuff consumed, and the average per centum of increase in bread baked.

bbls.	lbs.	lbs.	Total lbs.
Fine Flour.	Fine Flour.	Corn Meal.	Flour & Meal.
141	27,636	4,800	32,436
lbs. bread	More bread	Increase	
baked.	than materials.	per centum.	
39,088	6,652	20½	

You will find in the statement below, the consumption of Flour and Meal with the average of

increase per centum, from the 4th Jan. 1837, to 3d Jan. 1838, during which time we have been using superfine flour.

bbls. Super.	lbs. Super.	lbs. of	Total lbs.
Flour.	Flour.	Corn Meal.	Flour & meal.
624	12,2304	22,540	14,4844
lbs. bread	More bread	Increase	
baked.	than materials.	per centum.	
185524	41000	near 30.	

In the month of July, 1837, a lot of Superfine flour from Virginia of 40 bbls. known to be of inferior quality, was purchased at a reduced price, and yielded only 19 per centum increase, but for which the increase would have been fully what is stated, viz. 30 per centum. It is, however, a fraction less with that included.

IMPROVED BADEN OR TWIN CORN.

To correct erroneous impressions relative to the character and value of the BADEN CORN we are authorised to publish a letter received from Col. Mercer, of West River, Md., whose intelligence and observation as a planter, is too well known to need comment. It is only necessary to state that after several years care in making his selection of seed, that he has produced a corn superior to the Baden, and particularly adapted to successful cultivation in this section of the country, being earlier, a pure white flint, and more productive than the common Baden Corn. Thus rendering it a certain crop, which cannot be said in favor of the Baden unless planted further South, where it has the advantage of long seasons to allow it time to mature before the early frosts.

R. SINCLAIR, Jr. & Co.

February 16th, 1838.

CEDAR PARK, 9th Feb. 1838.

To R. SINCLAIR, Jr. & Co.

GENTLEMEN—In compliance with your request I have sent you an additional supply of the Baden Corn, and also a barrel of the Eastern Shore prolific, or Twin Corn, as now improved and cultivated by myself.

Of the former, I will say nothing, as its reputation seems to be completely established, but of the latter, I can confidently affirm, that, after a series of careful experiments made during six successive years, I prefer it to any variety that I have ever cultivated. In comparing it with the Baden, or the Eastern Shore varieties, I think you will readily perceive that it is of a purer and more uniform character than either, although they are all of the same family and manifestly closely allied. This superiority, I attribute to the course that I have pursued in selecting my seed, during the last six or seven years. I procured in the commencement my seed from a parcel that had been selected for seed in the field, by one of the most distinguished agriculturists, on the Eastern Shore, and although I found that it fully realized all I had heard of its productiveness, (bearing always two and frequently six, eight, and ten years to the stalk,) yet that it was deficient in whiteness, and in weight. In order to obviate these two important objections, I commenced an additional and stricter selection. Out of the mass collected in the field from the most prolific stalks, I selected the whitest and most flinty ears for seed, and by continuing this process now for six or seven years,

I have obtained the corn which I send you. With great respect,

Your obedient servant,
JOHN MERCER.

PROCEEDINGS OF THE AGRICULTURAL SOCIETY OF NEW CASTLE CO. DEL.

Communicated for publication in the Farmer & Gardener.

A quarterly meeting of the Agricultural Society of New Castle county, was held in the town of New Castle, Jan. 20th, 1838.

Major Stockton, one of the Commissioners on the geological survey of the state, stated that he had just received from Mr. Booth, State Geologist, his first report on this subject, which was read to the meeting. The report was highly satisfactory, as far as it extended, showing that marl and green sand are found in great quantities and of excellent quality in St. George's Hundred, and limestone in several parts of the county.

On motion of Anthony Higgins, the corresponding Secretary was requested as a part of his duty to correspond with practical farmers in this state, and elicit from them facts and communications relating to Agriculture, and publish such as he shall deem useful to be generally known.

The president, P. Reybold, stated that he had been requested by Josiah Reeve and other farmers of Salem county, N. J. to invite some of the members of this society to visit the marl beds of that county, and also the fine fat cattle of Edwd. Tonkins of Gloucester county. The invitation was accepted, and P. Reybold, Dr. Thomson, E. Tattnell, Capt. Maxwell, Saml. Canby, Anthony Higgins, Jno. W. Andrews, Major Stockton, Jno. C. Clark, Joseph Wetherall, and Major Delany, were appointed to perform said visit, and report to the next quarterly meeting.

The corresponding secretary exhibited some beautiful specimens of spring wheat, and gave to each of the members present some seed of the alfalfa grass, or white clover of South America, with a view of testing it.

The corresponding secretary was directed to procure from Judge Buel of Albany, a quantity of Dutton Corn.

On motion of Dr. Thomson, the following preamble and resolution was adopted, and Dr. Thomson, Capt. George Maxwell, Samuel Canby and Philip Reybold, were appointed the committee, and requested to report to the afternoon sitting of the society:

Whereas, the fine marsh meadows along the Delaware, as well as many of the rich upland farms in this state have been for years past celebrated for feeding and fattening cattle, and many of our most enterprising farmers have turned their attention to this business, thus improving their lands and accumulating wealth among our citizens; and whereas, from some cause or causes not ascertained, the supply of store cattle from the East and from the West has been regularly decreasing, and the price advancing, being now so high as to preclude many from buying, threatening a suspension, and in some instances an entire abandonment of the grazing business—therefore,

Resolved, That a committee of four, including the president, be appointed to enquire into the causes of the scarcity and high prices of cattle as aforesaid, and to point out, if practicable, the pro-

per remedies by which the large farming and grazing interests of the state may augment their supplies and maintain their reputation among the graziers and feeders of the country.

In the afternoon, the committee reported, briefly:—That four causes, in their opinion, operate to depress the business referred to:

1. The neglect of the farmers in the middle states in raising so small a portion of their young cattle except for the dairy, and universally adopting the culpable practice of selling them for veal, from four to eight weeks old.

2. The increasing demand for this description of stock, in the interior of the country, to the west and south west, hitherto but partial grazing districts.

3. The moneyed derangement of the country, within the last two years, which has lessened considerably the number of drovers, who from their heavy operations are necessarily dependant more or less on bank accommodations.

4. The injurious practice which has for some time been operating against the graziers, compelling them to buy stock second and third handed, from companies and individuals, who go out and meet the cattle on their way to market, monopolize the trade, buy up, and retail out to farmers at an advance too great for their profits, or for the good of the public, as to their supply of beef at a reasonable price.

To remedy in a great measure the first and second evils alluded to, the committee are of opinion that the farmers and graziers of the Atlantic states should all at the same time turn their attention to raising more of their own oxen and store cattle; believing it will pay them well to do so, especially by crossing our large native breeds with the fine imported Durham and Devon cattle now so common amongst us.

Of this the committee are more positive since visiting the celebrated New Jersey cattle now in feeding by Mr. Edward Tonkins, of Gloucester Co. which are three-fourths Durham from large native cows. Two of his large oxen will now net at 7½ years old 4000 to 5000 lbs. of beef; and his 3 year old stock of the same breed are now worth to the butcher about 120 dollars per head, though they have never been housed in winter nor had more than a fair and ordinary keeping.

The derangement in the currency of the country is much to be deplored, and is now grievously felt by the farming and grazing, as well as the mercantile and trading interest of the country. To the farmer as one great class of the community, it is of prime and vital importance, that confidence should soon be restored, and business of all kinds again be permitted to course along its usual channels, giving permanency to the value of their real estate, and certain sale for its products. This condition of things we shall soon realize when the government ceases its hostility and interference with the state institutions, and gives its powerful aid to tranquilize and settle the public mind, and restore mutual confidence and credit between it and the people, and between debtors and creditors, at home and abroad.

To remedy the last evil alluded to, your committee unanimously recommend a meeting at an early day of the farmers and graziers of this county, and the adjoining counties of Pennsylvania,

for the purpose of forming an association, that shall, by competent and experienced agents, selected from among themselves, go into the cattle districts and buy in first hands on their account, and bring to stands established in this vicinity, such cattle as shall be ordered by the association; none of which shall be sold or bartered on the way, or disposed of by said agents until after their arrival at said stands, and not then, till sanctioned by the association. In this way alone, the committee believe, will the monopoly and high price of stock be met and regulated by the farmers and graziers themselves, a full supply always ensured to them of cattle of the best quality and at the lowest market price. Signed,

J. W. THOMSON,
GEO. MAXWELL,
SAMUEL CANBY,
PHILIP REYBOLD, } Committee.

The Society then adjourned to hold its next quarterly meeting at Cantwell's bridge.

JNO. W. ANDREWS, Sec. pro tem.

[From the New England Farmer.]

REPORT RECOMMENDING A BOUNTY ON WHEAT.

COMMONWEALTH OF MASSACHUSETTS.

House of Representatives, Jan. 20, 1838.

The Committee on Agriculture, having by instruction of the House, considered the expediency of allowing a bounty for the production of Wheat, ask leave to submit the following Report:

It has long been a subject of deep regret, if not of reproach, that the state of Massachusetts—a state, whose soil is believed to be capable of sustaining more than double its present population—should be indebted to other states, and to foreign countries, for a very large part of the material, which forms the first and most necessary article of subsistence,—BREAD. The stubbornness of some portions of her soil; the supposed incapacity of other portions to produce sufficient crops of grain to recompense the cost and labor of cultivation; the severity and long continuance of winter; the slow and reluctant approach of summer; and the early return of disastrous and fatal frosts in autumn, have operated as a discouragement to the farmer; and, if he has not been seduced by fairer promises to hazard the success of his skill and industry in the milder climate and kinder soil of the western states, he has in too many instances, it is feared, suffered his attention to be diverted from that, which should be the primary object of his pursuit, by hopes of realizing speedier and greater profits in more flattering yet not less doubtful experiments.

An opinion that the soil of New England cannot be made to produce grain enough to feed its population, has too long been prevalent in this Commonwealth. We believe this opinion to be erroneous. We believe that the owners of the soil have been too ready to admit its soundness, and that they have not examined the ground on which it rests, with that intelligence and shrewdness, which they are wont to exercise on subjects generally presented for their investigation. We wish to prevail upon them to examine this question once more, to review the circumstances in which it had its origin,—and to bring it to the test of a bold and faithful experiment. With this

view, and to effect so desirable an object, we are unanimously of opinion, that the Legislature would do wisely to encourage the agriculturist once more to turn his serious attention to the cultivation of grain; and, because success in such an enterprise is a blessing, in which the whole Commonwealth may participate with the successful individual, it seems to be just and proper that the Commonwealth should, for its share of the benefit, reward the individual, by the granting of a liberal bounty for his exertions as a public benefactor.

The committee regret that they are not in possession of any returns of a recent date, from which they can make a satisfactory calculation of the quantity of grain raised in the State for several years past. The returns of the assessors, made to the Valuation Committee in 1830, is the only document of this character to which they have had access. From the statements in those returns, no warrantable inference can be drawn as to the amount raised the last year;—for it is not doubted that the production of all the grains, which are used for human food, has greatly increased since the period. According to the returns above mentioned, the entire quantity of wheat raised in the Commonwealth in 1830, was only 16,073 bushels. Of this quality, 5,177 bushels was produced in the county of Berkshire; and of those 5,177 bushels, the town of Sheffield had the honor of producing 1,014. Of the whole amount of wheat raised in that year, as above stated,

The County of Suffolk produced

"	Essex	"	3,916
"	Middlesex	"	312
"	Worcester	"	3,075
"	Hampden	"	1,746
"	Hampshire	"	587
"	Franklin	"	960
"	Berkshire	"	5,177
"	Norfolk	"	41
"	Bristol	"	16
"	Plymouth	"	29
"	Barnstable and Dukes		214
"	Nantucket		

It is not in the power of the committee to state, with perfect accuracy the amount of the flour, which is imported into the state for the consumption of its inhabitants; but they are in possession of facts, which lead to conclusions that cannot be far distant from the truth. During the year 1837, there were imported into the port of Boston alone 423,246 barrels of flour. During the last eight years, the aggregate of the importation was 3,108,942 barrels—making an annual average of 388,619 barrels. The details from which we have prepared this statement, show, that there has been, for four years, a regular annual increase of importations of flour, and that the importations of other coarser kinds of meal and grain, such as rye, corn, oats, &c. has increased about the same ratio.

It is presumed that the imports of flour into Salem, Newburyport, New Bedford, Nantucket, and other smaller ports, equal at least one-third of those at the port of Boston. Large quantities of flour find their way up Connecticut river, for the supply of the towns on its borders and those in the vicinity. And there is, finally, an almost perpetual transportation by means of wagons, from

Troy, Albany, and Hudson, into the county of Berkshire, for the supply not only of the inhabitants of that county, but for consumption by the people of many towns in the counties of Franklin, Hampshire, and Hampden. When all the imports by these various channels are taken into the calculation, it is presumed that the amount of the flour thus brought into the state, is not less than that which is known to be brought into the port of Boston. But, admitting that the quantity equals only two-thirds of the Boston importation, it will then appear that our annual import of flour is 705,410 barrels.

Now, if we suppose that a part of the flour imported into Boston, should be transported (as it undoubtedly is) to the adjoining states of Vermont and New Hampshire, and possibly a large quantity of Maine, yet it is not believed that the whole amount thus carried out of the state exceeds 5410 barrels. There then remains for consumption in our own Commonwealth, 700,000 barrels; and it will be perceived that this number corresponds (within a very small fraction) to the number of our inhabitants—give one barrel of flour for the annual consumption of each individual; and this is believed to be a very near approximation to the actual truth.

The average price of flour, for the last three years, has been a fraction over ten dollars a barrel; but placing it at the lowest possible average, (ten dollars) it is manifest that the inhabitants of Massachusetts pay for the article of flour alone, to other states, the very handsome sum of 7,000,000 dollars a year. This declaration may, at first, appear startling, and almost incredible. It is one which should make the ears of every farmer who hears it tingle; but the committee have no doubt that its truth is demonstrable, and that any intelligent man, who will take the trouble to review the facts, and compare them with these calculations, will arrive at the same conclusions. The committee, themselves, would have doubted, if investigation and research had not placed the result beyond all questionable limits.

Viewing this subject in its relation to the interests of all classes of our population, the committee have no hesitation in recommending to the House of Representatives, the passage of a law, that shall give a bounty on the production of wheat; and they accordingly, herewith report a bill for that purpose. If it should be objected, that the bounty proposed will produce a call on the treasury of the Commonwealth, disproportioned to the value and importance of the improvement, which it is desired and expected to effect, let it be remembered that the amount of bounty cannot, in any supposable case, be more, than an insignificant trifle in comparison with the immense sum, which the people pay for imported bread stuffs. Admitting that the call upon the treasury, for this bounty, should amount to \$100,000—although it would not probably amount to more than \$80,000—what is that, when it is considered that it is so much abstracted from seven millions of dollars, which we pay to the farmers, or to the speculators and monopolizers of other states? Let it be remembered, too, that this sum of 100,000 cannot be drawn from the treasury, on the principle of the bill reported, for a less quantity of wheat than 750,000 bushels; and in the same proportion

for a larger or smaller amount. Furthermore, be it remembered, that whatever sum may be paid out for this purpose, is distributed among our own people, and to a class of citizens, whose labors will produce an effect more permanent, than may be apparent to a hasty and superficial observer.—The proper preparation of land for a crop of wheat will ensure a succession of crops of the same article for several years. If the soil be suitably manured with lime, and arrangements made for an alternation of crops, no further manuring will be required (if an inference may be deduced from the successful practice of the great wheat-growing state of Pennsylvania,) for a term of ten or twelve years. Once more, let the people be reminded, that, in the case supposed, after admitting that the plentifulness of the crop of wheat may reduce the price, as it naturally will, the crop of 750,000 bushels would still, in any possible event, be worth that number of dollars; and, consequently, after deducting from the value of the crop the sum paid out in bounties, there is then remaining the sum of *six hundred and fifty thousand dollars*, to be added to the aggregate wealth of the community.

If the utility of legislative encouragement to agriculture has ever been questionable, it is presumed to be so no longer in this Commonwealth. The incalculable benefits that have been derived from the premiums awarded by agricultural societies, for a series of years, sufficiently manifest the wisdom and forecast of the Legislature in thus liberally endowing these institutions. The bounties more recently offered for the encouragement of the culture of silk and the sugar-beet, equally demonstrated the wisdom of that paternal policy, which induced the civil fathers of the Commonwealth to extend a fostering care and guardianship to those branches of husbandry. The institution of an Agricultural Survey, and generous appropriation for the support of a Commissioner, is also an illustration of legislative munificence, which is entitled to the grateful remembrance of the community. The example of the state of Maine affords an argument, which should not be kept out of sight, in the consideration of this subject. The operation of the law of that state, passed in January, 1837, has been most salutary. The committee learn from a letter in their possession, from the Secretary of Maine, that though the amount of wheat raised in the state during the last year has not been officially ascertained, it was believed to be nearly a million of bushels.

In thus presenting this subject to the House of Representatives, the committee are not aware that their views are in any degree extravagant or their calculations fallacious. They have been desirous that their enthusiasm should be qualified with sobriety; and that their zeal for the improvement and success of that art, which is most natural to man, and without which all other arts would avail but little as means of happiness and comfort, should not overstep the limits of prudence and good policy. Without further comment or apology, they recommend the passage of the accompanying bill.

By direction of the Committee,
JOSEPH T. BUCKINGHAM.

Mend your fences, so as to be ready for the labors of Spring.

[From the London Mechanics' Magazine.]

PRACTICAL REMARKS ON KEEPING BEES.

Sir,—Having been requested by some person desirous of keeping bees, to give, through the medium of the Mechanics' Magazine my opinion as to the best method of managing these useful insects, I beg to solicit the favor of the following observations being inserted.

I have kept bees nearly twenty years, and practised various plans with a view to gain the greatest produce in honey and wax with the least trouble, but more particularly with a view to the preserving the lives of the bees, and feel confident that the story-fying system, which I believe Wildman practised, is the best. I tried for six or eight years the plan Mr. Nutt advocated, which by-the-by, is as old as any of the plans known, but without meeting with any thing like the success of the common cottage hive. A strong stock in the latter had produced me an early swarm and cast, the swarm produced in a good season upwards of forty pounds of honey, and the cast fifteen pounds, the stock being kept five or six years. The honey thus procured is always of good color, and fit for sale; and when after six seasons the parent stock is destroyed, the honey, being dark, may be used to make mead, or sweeten wine with, a strong swarm being kept to supply its place.—This plan requires the destruction of the bees, and is therefore censured as inhuman, but to me is not more so than destroying beavers or cats for their skins, or catching fish to manure the land with; the consumer never considering how produce is procured, and should therefore, be considered the most culpable, if such acts are breaches of humanity.—The hives I now prefer are flat, having wooden tops fixed on with wires. The inside should be twelve or thirteen inches clear, and about seven inches high, the top having a centre hole, and three or four others round it near the outside, each hole being two or three inches diameter, and fitted with nice bungs. If no swarms are wanted, a large glass, or small straw hive may be put on the top about the end of March, or a small glass to each hole, previously pulling out the bungs, gently turning them round first, each glass having a bit of paper pasted on it, stating its weight when empty; such glasses being placed over them. Every ten or twelve days they should be examined and when filled may be removed, and others put on, as long as the season permits. If a stock is weak, a new swarm or a cast may be put on the top of it, and the entrance closed till eight or nine o'clock the following night. These stocks may be preserved seven or eight years, but should be kept in a house or shed; and when the winter begins, the bungs having been replaced, should be covered over with sacking or other warm articles: Glasses may be put on a swarm immediately after hiving them, removing them in three or four weeks, to enable the bees to procure enough for the winter. The boards above mentioned should be made of pine plank, half an inch thick. The bottom boards should be made of the same, one inch or one inch and a half thick, having a piece projecting for the bees to light upon. By pursuing this plan, any number of stocks may be kept but with little trouble, and the bees saved; but the placing

the placing the glasses on an empty hive is essentially necessary.

I am, Sir,
Your obedient servant,

G. L. EMARTT.

Enfield, Feb. 10, 1837.

THE DELAWARE REGISTER AND FARMER'S MAGAZINE.—The first number of a periodical under this title, edited by *Wm. Huffington*, has just made its appearance, containing 80 neatly printed octavo pages. It is published at Dover, monthly, at \$5 a year. The Editor proposes to collect and reduce into form such materials in relation to the History of the State of Delaware as may come within his reach, to endeavor to promote more attention than is at present paid to the cultivation of the soil, in order to put a stop to the spirit of emigration which has, within the last few years, taken place; and to give such accounts, from time to time, of the public institutions, manufacturing establishments, towns, villages, trade, shipping, soil, climate, &c., as shall make his readers acquainted with the advantages and resources of the State. The present number contains the first chapter of the Annals of Delaware; Biographical Sketches of the lives and characters of two of its eminent citizens, viz. *Cæsar Rodney* and *Nicholas Ridgeley*; and several interesting agricultural and miscellaneous articles. We are thus particular in noticing this new undertaking, because it appears to us to be worthy of encouragement.—*Nat. Intell.*

PROFESSOR ROGERS—and his Lectures!

We had a glorious treat on Thursday.—Mr. Rogers, one of the Professors of the University, and the distinguished Geologist of the State, delivered in the Capital the first of his Lectures on the mineral treasures of Virginia.—The morning was inclement, and the snow was falling fast, which prevented a multitude of ladies from attending—but as it was, his audience was large and respectable—embracing very few of the fair Geologists of the city, but many members of the Legislature, the Governor, officers of the Government, citizens and strangers.

We have never heard any oration with greater satisfaction. It was filled with a variety of interesting facts, as well as with large philosophical views—with all descriptions of the country so graphic, visions of prosperity so dazzling, illustrations so various, and in a style so lofty and eloquent, that it created the greatest sensation in his enlightened assembly. When he taught the truth, he thrilled them with his eloquence. While he touched our vanity, he rebuked our neglect.—While he paid the highest compliments to the political character of the State, he did not spare that want of enterprize which suffered so many treasures to sleep in the bosom of the Earth. In fact, he reproved us. He made us see how little we had done, and how much we had to do. His chastening cheered, and roused us.—And we will venture to say, that no man left that assembly, without being determined to make another effort for the prosperity of the Old Dominion.

The Professor described the mineral resources of every portion of Virginia, as far as he had time to examine them, from the seaboard to the moun-

tains, and from the mountains to the Ohio. He exhibited several rich specimens of our valuable minerals—with profiles of the mountains and valleys, where some of them are imbedded.—He exhorted us to persevere—and especially to prosecute our works of Internal Improvements, with a view of profiting by our resources, digging for our treasures, and bringing them to market.—The Lecture indeed was intended principally to illustrate the mutual interests of Geology and Internal Improvements—how much they contributed to each other's advantage—and how essentially the State would be rewarded, by smoothing the way between the riches of the West and their appropriate markets.

Professor R. will deliver a second Lecture this Evening at 7 o'clock, in the Hall of the House of Delegates—when we invite every amateur as well as connoisseur to attend. But we trust, that our absent friends will not be altogether deprived of the luxury we have enjoyed—but that the committee, who have brought him out, will obtain from him his two Lectures, for the use of the press, and the benefit of the public.—*Richmond Enquirer.*

To save the Shoulders of Horses from being Chafed by the Collar.

To the Editor of the Farmers' Register.

Waynesborough, Va., Oct. 4th, 1837.

Some of the gentlemen of South Carolina are in the habit of making long journeys by land in their own conveyances, and are obliged to resort to every method of affording relief to their horses. From one of these, I derived the following simple expedient for preventing the shoulders of harness horses from being chafed by the collar. The shrewd, practical sense of the gentleman referred to, is a strong guarantee of the value of his suggestions.—A short trial of my own, has fully convinced me of the utility of what is classically denominated the sweater. This simple and effectual contrivance is made of two pieces of leather, which, for an ordinary horse may be made 5½ inches wide at top, 6 at the greatest protuberance, the front edge straight, posterior curved with a gradual swell adapted to the shape of the collar behind. These pieces must be sewed together at bottom, and connected at top by two small straps and buckles, so as to be let out or taken up at will. The lower part must be so shaped as to fit the throat of the horse. A strap passes from the bottom of the sweater between the legs to the girth, by means of which it is kept in place.—The strap should not be too tight, lest it might incline a baulking horse to stop, when ascending a hill; and the buckle at the end near the girth, if it chafe, may be covered. The leather should be tolerably stout upper, rendered pliant by the occasional application of tallow to the outside. The inner side should be kept clean and smooth.

The sweater is in fact a sheath for the shoulders, and the collar rests on it, instead of the skin of the animal. H.

CULTIVATION OF INDIAN CORN.

Although it is quite early to begin to talk about cultivating any thing, I take the liberty of offering you a few suggestions upon the cultivation of Indian Corn, which may not come amiss.—The

corn crop for a few years past has been very uncertain, owing to the extraordinary cold and wet summers. It has been found that the old varieties, unless protected by "old fashioned summers," will not repay the anxious care of the husbandman; and some other varieties of quicker growth must be substituted in their place. One of these varieties is the Early Golden Sioux Corn; it is the same or very much like the kinds which have been celebrated in the newspapers as being "remarkable early and productive," under the names of Early Phinney, Dutton, Clark, and some other synonyms; it is found to be the most certain and desirable variety now known. It comes to maturity a full fortnight and nearly three weeks earlier than any other variety. The Hon. S. Lathrop, of West Springfield, has harvested it the 30th of Sept. Another variety is the Early Canadian, eight rowed corn, small ear and very small cob, with the grain firm and hard. This is also a very desirable sort.

Great advantage may be derived by selecting seed from stalks bearing two or more ears.—The following directions for selecting seed corn, are from Willich's Domestic Encyclopedia:—"When the first ears are ripe enough for seed, gather a sufficient quantity for early corn, or replanting, and at the same time you would wish corn to be ripe generally, gather a sufficient quantity for planting next year, having particular care to take it from stalks which are large at the bottom, of regular taper, not over tall, the ears set low, and containing the greatest number of good sizable grains of the best quality; let it dry speedily, and from the corn, gathered as last described, plant your main crop, and if any hills should be missing, replant from the first gathered, which will cause the crop to ripen more regularly than is common; this is a great benefit." The above is not exactly in season, though it contains instruction which should be treasured up by every farmer, to be used in time of need. Those who have practised the method are satisfied that it increases the quality of the crop beyond expectation.

Wood ashes is a very powerful stimulant to corn. The effect of a pint of ashes upon a hill is very great, causing it to yield much more than one to which it is not applied. The importance, then, of saving wood ashes is most apparent.—Corn, again, manured with unleached ashes in the hill, will be less annoyed by the cut-worm than one to which other manure has been applied.—The best soils for corn are the sandy, sandy loam, gravelly loam, and rich red, or dark colored earths, which have but little clay in them. A clover sod, well turned over, makes the best preparation for the crop.

I have rather hastily made these remarks, feeling the importance of our attending to the selection of good seed corn in season, and with the hope that those who have any that is early and proper for seed, will make it known, and also any facts respecting its cultivation which will be serviceable to the community.

A statistical view of the number of Sheep in Maine, &c. "with an account of the number of the principal woollen manufactories in the Union; to which is added a short sketch of the introduction

of the merino and Saxony sheep in the United States, and the mode of treatment pursued by some of the principal growers of wool in New England Compiled by C. BENTON and S. F. BARRY."—The above little work of 150 pages is for sale by Mr. Taylor, of this city. It has been compiled with much care and trouble, and contains an amount of information very useful to persons interested in the trade and production of American wool and its manufactures. The facts and details may be useful to members of legislative bodies. The following is given as a "recapitulation of the sheep in each State:—"

Maine,	522,619
New Hampshire,	465,170
Vermont,	1,099,011
Massachusetts,	278,322
Rhode Island,	81,610
Connecticut,	255,160
New York,	3,290,879
New Jersey,	250,000
Pennsylvania,	1,714,640
Delaware,	150,000
Maryland,	275,000
Virginia,	1,000,000
Ohio,	1,711,000
Kentucky,	600,000

Total, 11,893,411

Nat. Intell.

[From the Farmer and News Letter.]
RUTA BAGA FOR HORSES.

Mr. Cole :—Noticing in one of your papers a recommendation of Ruta Baga, in small quantities, as good food for horses, I have this winter tried the experiment much to my satisfaction. I have two working horses which I have fed on coarse fodder together with a peck of ruta бага each per day. My horses were never in better health and flesh since I have kept horses, which has been for about thirty years. My neighbors frequently ask how much grain I give them, and they appear much surprised when I tell them—not a kernel.

Westbrook, Me. Jan. 23, 1838.

REMARKS BY THE EDITOR.—We have just noticed one of the above horses, and as he is in so fine order it is no wonder that W's neighbors are surprised when they find that he is kept so well without grain; and we were surprised to learn that the coarse fodder on which these horses are kept is nothing but the rye stubble and weeds, mowed after the crop of grain was harvested.

Here, brother farmers, is an important lesson for you—a very cheap method of keeping horses in fine order so that they will skim you over the ground with the velocity of old Scrapewell's mare. This fact, together with that of the abundant yield and cheap method of raising ruta бага, which is on another page, is worth thousands of dollars to the community. We have before recommended to farmers to raise roots for their stock instead of grain; they are usually worth as much as the grain that can be raised on six or ten times the quantity of ground, and they will keep stock in a better condition than grain. In this way the same amount of food, and better food, can be obtained, and yet the most of the land usually devoted to

raising grain for stock can be put to other useful purposes.

EXTENSIVE SALE OF IMPORTED STOCK,
At the Old North Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr. dam, (Layd Sarah) by Pilot; gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcerer, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to
THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish.
feb. 13.

TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$20 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis", "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$20 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Scythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms, and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled entire all orders in the Agricultural and Seed Departments.
feb 13

JOHN T. DURDING & Co.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	7 00	8 50
CORN, yellow	bushel.	70	72
White,	"	75	76
COTTON, Virginia,	pound	10	12
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	45	50
FLAXSEED,	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's,	"	—	—
SuperHow. st. from stores	"	7 87	8 25
" " wagon price,	"	7 50	7 75
City Mills, super,	"	8 00	8 25
" extra	"	8 25	8 50
Susquehanna,	"	—	—
Rye,	"	6 50	—
Kiln-dried Meal, in hhds.	hhd.	20 50	—
do. in bbls.	bbl.	4 12	—
GRASS SEEDS, wholes. red Clover,	bushel.	5 25	5 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	—	7 50
Slaughtered,	"	6 25	7 00
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	—
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	5 50	—
Ground,	barrel.	1 50	scarce
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	85	90
Susquehanna,	"	—	none
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 90
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 70	1 80
Red, best	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.	gallon.	33	—
" in hhds.	"	34	—
" wagon price,	"	bbls	30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35 40	18 20
Three fourths Merino,	"	30 35	18 20
One half do.	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured,	pound.	13	13½
Shoulders,	"	11	—
Middlings,	"	11	—
Assorted, country,	"	10	—
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old,	each.	5 00	6 00
Cows, new milch,	"	30 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 68	—
CHOP RYE,	"	1 50	1 62
EGGS,	dozen.	12½	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	3 00	—
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,	"	5 75	—
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	14a½	Farmers Bank of Virgi. 14a½
Other Branches,	do	do	Bank of Virginia,
MARYLAND.			Branch at Fredericksburg, 14a½
Banks in Baltimore,	par	14a½	Petersburg,
Hagerstown,	3a	14a½	Norfolk,
Frederick,	do	1	Winchester,
Westminster,	do	14a½	Lynchburg,
Farmers' Bank of Mary'd, do	do	do	Danville,
Do. payable at Easton,	do	1	Bank of the Valley, ..
Salisbury, 1 per ct. dis.	do	1	Branch at Romney, ...
Cumberland,	par	1	Do. Charlestown, ...
Millington,	do	14a½	Do. Leesburg, ... 14a½
DISTRICT.			Wheeling Banks, ... 3a3½
Washington, } Banks, 1p.c.			Ohio Banks, generally 6a7
Georgetown, }			New Jersey Banks gen. 5
Alexandria, }			New York City, par
PENNSYLVANIA.			New York State, 3a4
Philadelphia,	par	3a3½	Massachusetts, 3a3½
Chambersburg,	½	3a3½	Connecticut, 3a3½
Gettysburg,	do	3a3½	New Hampshire, 3a3½
Pittsburg,	3½	3a3½	Maine,
York,	½	3a3½	Rhode Island, 3a3½
Other Pennsylvania Bks. 2		5	North Carolina,
Delaware [under \$5] 4		6a7	South Carolina,
Do. [over 5] 1½		do	Georgia,
Michigan Banks,	10	do	New Orleans,
Canadian do. 10		do	

500 ENGLISH GOOSEBERRY PLANTS.



The subscriber early in last December received, among many other chaste articles, 500 large premium Gooseberry Plants, direct from Manchester, England, assorted cutters—Price \$4 per doz.

DOUBLE DAHLIAS.

Of this magnificent Flower, he has a large assortment of the newest and best varieties, of strong Roots in a fine state of preservation, and expects to have potted, plants of the latest imported, and his best varieties deliverable early in May, at reduced prices, according to quality, all which can be safely packed and sent any reasonable distance.

ORNAMENTAL TREES AND SHRUBS.

A large stock mostly of thrifty large size plants. MORUS MULTICAULIS and Morus Alba Mulberry, for feeding Silkworms; and Grape Vines, two and three years old, of most all the best sorts for cultivation, and cuttings of the same.

Fruit Trees assorted as usual, and Asparagus Roots. Orders increased by mail or otherwise, will be carefully dug, packed and forwarded, on the most reasonable terms. See printed and priced catalogue to be had gratis of the subscriber or R. Sinclair, jr. & Co., Baltimore.

ROBERT SINCLAIR, Sen.

feb 6

FARMERS' REPOSITORY
OF AGRICULTURAL IMPLEMENTS AND EASTMAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobacconists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as, usual. Elliott's Horizontal Wheat Fans, and Fox & Bolland's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On hand, a few Patent Lime Spreaders, Horse Powers, &c. &c. Also just received, a fresh supply of Landreth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,

Pratt street, Baltimore,

feb 20

Between Charles & Hanover sts.

ITALIAN SPRING WHEAT FOR SEED.

The subscriber has obtained from the Cultivator office at Albany, N. Y. a few barrels of this most valuable variety of Spring Wheat, which he will dispose of. The trials that have been made of the Italian Spring Wheat, in the States of New York, Pennsylvania, Delaware and Maryland, have established the following facts—that it yields largely, is a very sure crop, (winter killing is avoided,) will do well on poor, worn out land, but will prove much better and heavier on a more favorable soil; that land so light and worn down that it will not produce a crop of oats, will produce a fair crop of Italian Spring Wheat; and that the flour makes good light sweet bread.

It is seldom affected with smut; if limed, never; it does well in almost any soil, from a stiff clay to a sandy plain. It may be sown in March or April, and is fit for harvest in July, producing in New York from 15 to 25 bushels per acre. It is put up in barrels, containing about 3½ bushels, and the price is \$5 per bushel. Gentlemen at a distance wishing to give it a trial should forward their orders immediately to the subscriber, who will forward it by the first conveyance.

GIDEON B. SMITH, Turf Register Office,
jan 30 Baltimore Md.

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THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 44.

BALTIMORE, MD. FEBRUARY 27, 1838.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER.

and is published at the office, at the N. W. corner of
Baltimore and North streets, over the Patriot office, at two
DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

BALTIMORE: TUESDAY, FEBRUARY 27, 1838.

We publish in to-day's paper a very interesting
communication upon the value of the New-Zea-
land or Flax Lilly, which we commend to the at-
tentive perusal of our patrons.

BARILLA ASHES.

Every intelligent farmer knows that in all large
cities, where the manufacture of the finer quali-
ties of soap is carried on extensively, that there
are two kinds of leached, or *spent ashes* sold by
the soap boilers. In the manufacture of brown
soap the common wood ashes is used, to which
is usually added a moderate quantity of lime. In
the manufacture of white and fancy soaps, a much
larger portion of lime is added to wood ashes, as
also nearly as much of the article known in com-
merce under the name of *Barilla*. And as it is
important that agriculturists using what is termed
Barilla ashes, should know its component parts,
we have made it our business to inquire as to
their composition, and are enabled to state, that it
contains the following ingredients, viz: 45 bush-
els of *lime*, 36 bushels of common wood ashes,
and 30 bushels of *Barilla*, which abounds in pot-
ash. These proportions then, being added to-
gether, make 111 bushels, which will give to eve-
ry hundred bushels of the mixture, 40 60-111ths
bushels of lime, so that the farmer who applies
100 bushels of the Soaper's *barilla ashes* to his
land, does also at the same time, *lime* it to the ex-
tent we have named. It is, therefore, obvious
that, in the same operation, the soil receives a
dressing both of ashes and lime. We have heard
it stated by intelligent farmers, who have used
both sorts of ashes, that a hundred bushels of
common ashes acted better on an acre than the
same quantity of *barilla*; though in pushing our
inquiries, they admitted, that their idea of the
term *better* consisted in the quickness of the for-
mer. That it should act *quicker* may readily be
conceived, when it is considered, that a very large

portion of the *Barilla* consists of *lime*, and conse-
quently that there is less ashes in any given quan-
tity, but for *durability* in effects, we think there
can be no question that the latter is far preferable;
and we believe too, that so far as its *mechanical*
action upon the soil is concerned it is best.

We are aware that some entertain the belief
that the *barilla proper*, of itself, possesses no vir-
tues for agricultural purposes, and that the pro-
portion of it which exists in the *Barilla ashes*, is,
in fact, a subtraction to that amount from the quan-
tity of ashes bought. Now this is not only a fal-
lacious, but a mischievous opinion. It is falla-
cious, because most chemists affirm, that it is the
potash in wood ashes which render them valua-
ble, with which the *barilla* is heavily charged, and
therefore this belief is altogether groundless; and
it is mischievous, because it deters many farmers
from availing themselves of the opportunity of
procuring and using this sort of ashes.

Before we condemn an article, or pronounce it
worthless, we should at least inquire what it re-
ally is; as in the absence of this knowledge we are
hardly able to form such an opinion as would be
worthy of much consideration. What is *barilla*?
—So far as the article known to commerce in this
country is concerned, we believe it is produced
by the burning of a species of sea-weed called
Salsola Soda, and contains from 25 to 30 per
cent. of an impure *Soda* resembling potash in all
its essentials. On the coast of Scotland, there is
a species of the sea-weed produced, which though
it contains but from 2 to 3 per cent. of soda is
considered so valuable that the business of burn-
ing it is most extensively carried on, and is in-
creasing on the entire northern coast of Great
Britain and the neighboring islands. We are as-
sured by good authority, that small farms in the
Orkneys, which formerly rented for £40 a year,
have now risen to £300 on account of their *kelp*
or sea-weed shores. The precise *modus operandi*,
or the manner in which the *barilla* acts on the
soil, is not fully comprehended, but enough is un-
derstood to know, that it has a tendency by its
attraction for water to maintain a moisture in the
earth, and from its causticity to render dead vege-
table matter soluble. In this way, it is fair to
presume, it prepares food for plants. Sea-weed,

used in its natural state, we know is more valua-
ble in proportion to the greater quantity of salt it
contains. This being established by the experi-
ence of farmers, no one should hesitate in believ-
ing, that the same material after undergoing the
operation of burning, and its alkalies being presen-
ted in a more concentrated form, would exercise
the same healthful action upon soil? For our
own part, we can see no good reason to believe
that any injurious change is produced by the lat-
ter process.

One word with respect to the *lime* combined
with the *Barilla ashes*. It is used because of its
affinity for carbonic acid, with which the latter a-
bounds, and of which, it is deprived through the
agency of the lime. Now we all know, that this
carbonaceous matter is a constituent of most
vegetables, and, therefore, its combination with
lime must be of service, as it is, doubtless, given
out again when the latter comes to be mixed up
with the earth. Hence we conclude, that the
quantity of carbon thus imbibed by the lime, is
more than an equivalent for any *abstraction* of its
virtues, arising out of the process to which it is
subjected by the soap boiler, and that the com-
pound, known as *Barilla-ashes*, is a most efficient
and lasting manure.

KENTUCKY STOCK BOOK.

We observe by a notice in the "*Franklin Far-
mer*," that the arrangement of the above forth-
coming work, has been confided to Dr. Samuel B.
Martin, of Colbyville. The selection of Dr. M.
we consider one of the best that could have been
made. His great practical knowledge, as a farm-
er and breeder, discriminating mind, untiring in-
dustry, and intimate acquaintance with the strains
of cattle both in this country and England, fur-
nish every guaranty that could be desired, that
the work will be well gotten up; and when we
add to these requisites, his high character for hon-
or and moral courage, no one will doubt but that
he will have the discernment to detect, and the
firmness to expose, any attempt, should any be
made, to pass off *grades* for *full-blooded* cattle. But
no one understanding the true character of a Ken-
tucky gentleman, will, for a moment, harbor the
sinister thought, that the Doctor will ever be call-

ed upon to exercise his right of censorship.—As most of our readers know, copies of the English "Herd Book" are rarely to be met with in this country; and we allude to the circumstance now, to introduce a fact which came to our knowledge about two years since. Dr. Martin had arrived in Baltimore, on his way eastward, whither he was going to purchase blooded cattle, and called to see us; and while in conversation upon the subject of pedigrees of Durhams, having occasion to refer to them, he pulled from his coat-pocket, *two volumes of the British Herd Book in manuscript*, which he had transcribed from a copy of the work that had been loaned to him by a friend. Can any one doubt, who may chance to read this, that a gentleman, who would voluntarily impose upon himself a labor so arduous as the one we have named, will not make the *Kentucky Stock Book*, a standard of truth and accuracy? We think not—and, in advance of its appearance, will venture the assertion, that it will be as fine as virgin gold.

We publish with pleasure the subjoined proceedings of a meeting of Agriculturists in Kent County, by which we are happy to perceive that the incipient steps have been taken to form an Agricultural Society, and wishing that the good example therein set will be generally followed throughout our country, we wish every possible success may crown the praiseworthy labors of the farmers of Kent, and that through the enlightened doings of their association the products of the county may be increased a thousand fold.

That an immense increase in product will be thus brought about, cannot be doubted by any one who is aware of the immense deposits of calcareous manures which have been discovered in Kent County—deposits of infinitely more value than so many gold mines, for while the latter subtracts from agricultural labor and enterprise, and diverts capital from a sure source of profit, the former is certain in its results, and enhances the value of property in a ratio sufficient to gratify the desires of rational ambition.

Besides these numerous deposits of lasting manures, a large number of the estates in this county are blessed with annual deposits of seaweed, the value of which is of the very first importance, and when used judiciously with marl must work a most desirable melioration in the soil.

AGRICULTURAL MEETING.

According to public notice, a large number of the Farmers of Kent county, met at the Court House, in Chestertown, on Saturday Feb. 10th,

and the meeting was organized by appointing Jeremiah Nicols Chairman, and Peregrine Wroth Secretary.

On motion it was then agreed that this meeting resolve itself into a society to be called the Agricultural Society of Kent County, and that the Chairman be requested to appoint a Committee of three members, whose duty it should be, to nominate a President, three Vice Presidents, a Secretary and Treasurer. The motion being carried, the Chairman appointed a committee of three.

The nominating committee having retired a few minutes, made the following report, viz:

President, Jeremiah Nicols, Vice Presidents, John M. Comegys, George S. Hollyday and Major Thomas Hynson—Secretary Dr. Wroth and Treasurer John W. Walker, which report was accepted.

On motion it was resolved that the chairman appoint a committee of three members to draw up a Constitution and prepare a code of By-Laws, and that said committee be instructed to report at the next meeting of the Society. The Chairman then appointed said committee.

On motion it was resolved that a committee of three be appointed by the chair, whose duty it should be, to propose a list of Premiums and to report at the next meeting of the Society. The chair then appointed as said committee, Judge Eccleston, Dr. Wroth and Edward Wilkins.

On motion it was resolved that the proceedings of this meeting be signed by the President and Secretary, and published in the Kent Bugle.

The meeting then adjourned to meet again on the last Saturday in February at the Court House in Chestertown, at 11 o'clock, A. M.

JEREMIAH NICOLS, President.

P. WROTH, Secretary.

NOTICE.

The Agricultural Society of Kent county, and all persons disposed to promote its objects, are invited to meet at the above place and time—Saturday Feb. 24th, in the mean time subscription papers will be left at the stores of John W. Walker and Thos. H. Osborn, in Chestertown.

P. WROTH, Sec'y.

Feb. 17, 1838.

Mortising Posts and Sharpening Rails.—We observe by the report of the Commissioner of Patents, among the list of patents granted in 1837, that Mr. Wandle Mace, of New-York, obtained one for mortising posts and sharpening rails. As there is no department of farming where economy is more required than in the making of fences, we should like to see a description of this machine; for if it be effective in operation, strong and simple in construction, and cheap in price, it will prove a desideratum much wanted by the farming community.

Early White Corn.—The editor of the *Yankee Farmer* describes a variety of early white corn raised in New England last year, whose kernels measured more than half an inch from row

to row. Now if the cob be small, the row compact and firmly set, and the stalk a good bearer, we should say it possessed qualities that should commend it to general culture in that region of short summers.

USEFUL RECEIPTS.

To restore tainted meat.—If your meat be tainted, take it out of the pickle, wash it so as to cleanse it of the offensive pickle, then wash your barrel well either with a solution of lime or ashes; after which repack it, and between every layer of meat put a layer of charcoal until your barrel be full; then make a fresh pickle, strong enough to bear an egg or potatoe, and fill up your barrel. As you repack your pieces, it would be well to rub each with salt. Let it remain a week or ten days and the taint will have disappeared, and the meat be restored to its original sweetness.

To clear houses or barns of rats and mice.—Gather the plant called the dogs' tongue, the *cynoglossum officinale* of *Lynæus*, at the period when the sap is in its full vigor, bruise it with a hammer, or otherwise, and lay it in the house, barn, or granary, infested by these vermin, and they will shift their quarters.

Another.—In any place infested with rats and mice, lay for three or four nights in succession, pieces of broiled meat or toasted cheese; the rats of course will carry them off, and from their exemption from harm, be prepared to partake of such poisoned messes as you may then prepare for them. You must now sprinkle the meat or cheese with arsenic, and the best way to do it is to make an incision in the meat or cheese and insert it. Not suspecting the trap set for them, the rats or mice will readily devour your bait and thereby receive their quietus.

Another still.—Mix up equal quantities of meal and sugar, and place it where the rats and mice frequent for a few nights; after which add a portion of arsenic to each parcel, and your unsuspecting enemies will greedily devour it.

And yet another.—Feed them a few nights with a paste made of flour, sugar, honey and milk; afterwards mix together 2 oz. of sugar, a teaspoonful of honey, 2 oz. of flour, 10 drops of the oil of rhodium, 1 oz. of the oil of carraway, and as much arsenic as will lay on a quarter of a dollar: make the whole into a paste by adding as much milk as will bring it into the proper consistency; then make it up into small pills or balls, and lay it in those places where you had previously put their decoy-bait.

MR. ELLSWORTH'S SUGGESTIONS.

We had laid by the following extract from the report of the Hon. *Henry L. Ellsworth*, Commissioner of Patents, made to Congress on the 17th ultimo, for insertion in our 41st number, but owing to circumstances have been prevented from doing so until the present moment. The suggestions which Mr. Ellsworth makes, are entitled to the most favorable consideration of Congress, and we trust will meet with a hearty response in that body. As a very humble advocate of the cause of agriculture, we tender him with our undissembled thanks for his disinterested exertions in behalf of a too long neglected interest. Though husbandry lays at the foundation of every other human calling, and without it all others would prove insignificant and vain—to the surprise of every one, it has been permitted to struggle on almost from the commencement of our government with but little aid, either from the general or state authorities. Again, we say of the recommendation of this enlightened and indefatigable public officer, that while it evinces a zeal on his part in behalf of agriculture, which is beyond all praise, it entitles him to the gratitude and thanks of every man engaged in the culture of the earth. If every public man in power, in executive and legislative offices, were to manifest a tythe of his zeal in behalf of the interests of husbandry, the melancholy spectacle which is now presented to the world, of our dependance upon Europe for a large portion of our supply of bread, would not long exist; and the humiliating condition to which we have been reduced, would speedily be succeeded by one more creditable to our industry, enterprise and skill as tillers of the soil.

We trust, however, that this state of things is about to cease—and that the evil will soon be remedied. In this good work, the legislatures of Maine, and Massachusetts, have already taken the lead, and New York, with her giant strength, is coming to the rescue with a spirit and energy that must excite a spirit of emulation throughout the country, which, we trust, will prove of the very first importance to the cause. New Jersey, Pennsylvania and Maryland, have each propositions before their legislatures, which we hope may find favor. Kentucky and Michigan, the oldest and youngest of our Western States, with the territory of but yesterday—Wisconsin,—are each inspired with the same zeal—and Congress too, not to be behind the local legislatures in the spirit of improvement, is, through its Committee on Agriculture, at work, and, as we hope will bring about some substantive benefit.

We bespeak for the extract subjoined an attentive perusal from every farmer and planter, but will not ask for it their approbation, because we know that *that* will be accorded as the spontaneous tribute of gratitude by every one devoted to agricultural pursuits.

EXTRACT.

Of late, inventors have directed their attention, with peculiar interest, to the improvement of the implements of *agriculture*; and many labor-saving machines have been patented, which are of the highest utility to the husbandman. These are rapidly increasing, and it is scarcely possible to conjecture to what extent the labor of the agriculturist may be diminished, and the products of the country increased by these improvements.—Already, the process of sowing, of mowing, and of reaping, is successfully performed by horse power; and inventors are sanguine in the belief, (and probably not without reason,) that the time is not far distant when ploughing machines will be driven by *steam*, and steam power applied to many other operations of the husbandman. Implements of this kind will all be collected and exhibited at the Patent Office; and, from the resort of thousands to the seat of Government during the session of Congress, a knowledge of their use and practical application will be extended over the whole country. A subject intimately connected with this, is the aid which husbandry might derive from the establishment of a *regular system* for the *selection* and *distribution* of *grain* and *seeds* of the choicest varieties for agricultural purposes.

For commerce and manufactures, much has been done; for agriculture, the parent of both, and the ultimate dependance of the nation, much remains to be done. Husbandry seems to be viewed as a natural blessing that needs no aid from legislation: like the air we breathe, and the element of water which sustains life, the productions of the earth are regarded by too many as common bounties of Providence, to be gratefully enjoyed, but without further thought or reflection. Were the two former susceptible of the same improvement with the latter, who would not rejoice to enrol his name high on the list of philanthropists, by making the first experiment? This subject has been forced on the attention of the undersigned by those who are engaged in improving our implements of husbandry. The Patent Office is crowded with men of enterprise, who, when they bring the models of their improvements in such implements, are eager to communicate a knowledge of every other kind of improvement in agriculture, and especially new and valuable varieties of seeds and plants; hence, the undersigned has been led to receive and distribute, during the two years, many articles of this kind, which have been committed to his care; and experience has induced him to believe that there is no spot in the Union so favorable to this object as the seat of Government.

The great desideratum, at the present time, seems to be, that some place should be designated and known as the depository of all articles of this kind, and from whence they may be dispensed to every part of the United States.

Our citizens who are led by business or pleasure into foreign countries, and especially the offi-

cers of our navy, and others in public employment abroad, would feel a pride in making collections of valuable plants and seeds, if they could be sure of seeing the fruits of their labors accrue to the benefit of the nation at large; but, hitherto, they have had no means of distributing to any extent, the valuable productions of other climates, which patriotism or curiosity has led them to introduce into our country. To a great extent, they have perished on their hands, for want of some means of imparting to the public the benefit they had designed to confer. Those who have not considered the subject in its wide details, are very imperfectly qualified to judge of its importance.

The introduction of a new variety of wheat promises the most gratifying results, in securing that important and indispensable production from the destructive effects of our severe winters.

A short time since, the most eastern State of our Union was, in a measure, dependant on others for her breadstuffs. The State is now becoming able to supply its own wants, and will soon have a surplus for exportation; and this has been effected by the extensive introduction of *spring wheat*. Among the varieties of this wheat, however, there is great room for selection; there is at least 20 per cent. difference, if regard is paid to the quality and quantity of the crop.

From experiments made the last summer, there can be no doubt that the crop of Indian corn may be improved at least one-third, without any extra labor, and this effected by a due regard only to the selection of seeds.

And here it may be mentioned, that an individual has devoted twenty-five years to this single object, and, from our common Indian corn, has produced a new variety, which, if distributed as it ought to be, may prove a great benefit to the husbandman and to the country.

From the samples transmitted to the Patent Office, especially from the shores of Lake Superior, there is a moral certainty of a good crop of corn in the higher latitudes, if proper attention is paid to the selection of seeds. Inattention to this subject has lost, to the northern portion of our Union, many millions every year.

[From the Cultivator for Feb. 1838.]

Testimony in favor of Italian Spring Wheat.

Extract of a letter from Philip Reybold, Esq. one of the most prominent farmers of Delaware, and President of the Delaware Agricultural Society) to Judge Buel, conductor of the Cultivator.

"My son and myself, obtained some Italian Spring Wheat, of Mr. Hathaway, last winter. I sowed six bushels, which yielded about *one hundred and twenty bushels*, without manure: I merely ploughed up my stock field, as we do for oats, and sowed it. In the adjoining field which I manured, and the chance being altogether better, my winter wheat was nearly all destroyed by the fly. *I intend sowing all my spring wheat I have raised, next spring.*"

Mr. Reybold raised about 30 bushels to the acre, and his determination to sow so large a quantity (120 bushels) of this wheat, shews his confidence in the value of it, and adds strength to Dr. Thomson's letter published in this paper.

The above wheat may be had (direct from Jay Hathaway, Rome, N. Y.) by applying to John L. Pierce, Bull's Head, North 3d street, Philadelphia,

NEW ZEALAND FLAX LILLY.

CURTIS'S BOTANICAL MAGAZINE, Dec. 1st, 1832.

Phormium tenax. Thunb. Diss. Nov. Gen. p. 94. First Gen. n. 24. Prodr. p. 325. Cook. Voy. v. 2, p. 96, cum. Ic. Thouin in Ann. du Mus. v. 2, p. 228, et 474, t. 19. St. Fond. v. 19, p. 401 t. 20. Redoubt. Liliac. t. 448-449. Ait. Hort. Kew. ed. 2, v. 2, p. 284. Schult. Syst. Veget. v. 6, p. 621. Spreng. Syst. Veget. v. 2, p. 76.

DESCRIPTION.—*Root* fleshy, forming a somewhat tuberiform root-stock, creeping beneath the surface of the soil, and sending up many tufts of luxuriantly growing leaves from four to eight feet long, and from two to four inches in diameter. They are distichous, vertical, coriaceous, deep green, somewhat glaucous beneath, finely striated, ensiform, the margin and nerve, especially at the backs, are reddish orange; at the base the inner edge has a deep furrow, which sheathes the leaf immediately within it, and upon various parts of the surface a gummy substance flakes off in white spots or scales.

From the centre of these tufts of leaves arises a *scape*, "12 ft. high, with 13 branches, of which the lower ones contain about 20 flowers, and the upper ones a less number in gradual diminution as they ascend to the top." These flowers are panicled and secund, ascending or pointing upwards; the *peduncles* and *pedicels* rounded, glabrous, often tinged with purple, and sheathed with scales or bractæe *marginated* with red.

The lower flowers of the branches seem to be very generally abortive and deciduous, breaking off at an apparent joint; the upper ones bear almost ripened capsules, while many of the former are still in full flower, and these capsules are oblong, tuquetrous, brown and wrinkled, attenuated slightly at the base, and surrounded by the withered stamens and floral coverings, acuminate at the extremity, and terminated by the persistent but withered style, somewhat fleshy, three celled, each *cell* bearing numerous, compressed, imbricated and erect seeds, inserted upon the inner angle of each cell.

In Cook's 1st voyage, Sir Joseph Banks discovered this highly useful plant. Speaking of the productions of New Zealand, he says: "But among all the trees, shrubs and plants of this country, there is not one that produces fruit, unless a berry, which has neither sweetness nor flavor, and which none but the boys took pains to gather, should be honoured with that appellation. There is, however, a plant that serves the inhabitants instead of hemp and flax, which excels all that are put to the same purposes in other countries. Of this plant there are two sorts: the leaves of both resemble those of flags, but the flowers are smaller and other clusters are more numerous; in one kind they are yellow, and in the other a deep red. From the leaves of these plants, with very little preparation, the natives make all their common apparel; and they also manufacture their strings, lines and cordage for every purpose, which are so much stronger than any thing we can make with hemp, that they will not bear a comparison. From the same plant, by another process, they draw long slender fibres, which shine like silk and are as white as snow; of these, which are also surprisingly strong, the

finer clothes are composed; while of the leaves without any other preparation than splitting them into proper breadths, and tying the strips together, they make their fishing nets, some of which are of an enormous size. A plant which with such advantage might be applied to so many useful and important purposes, would certainly be a great acquisition to England, where it would probably thrive with very little trouble, as it seems to be hardy and to affect no particular soil, being found equally in hill and valley, in the dryest mould and deepest bogs. The bog, however, it seems rather to prefer, as near such places we found it to be larger than elsewhere."

The seeds brought home by Sir J. B. in 1771, did not succeed; but the N. Z. Flax Lilly was introduced to the Royal Garden at Kew, through the medium of the same enlightened individual in 1789; and thence has been liberally distributed to collections in England on the Continent. Mr. Aiton sent it to the garden of the Museum of Natural History of Paris in 1800; has been cultivated in the open air of many districts, and first produced flowers in the Department of Drôme 1812, but it bore no fruit. Messrs. Labillardiere, Faryas de Fond, Desfontaines and Freycinet have devoted much attention to the cultivation and manufacture of this plant.—It has even withstood the severe winters of Paris, but in the South of France it has been propagated with considerable success, and survived the winters without the smallest protection. In the departments of the West, particularly in the environs of Cherbourg, it has perfectly succeeded and yielded ripe fruit.

It is readily increased too by dividing the roots. Allen Cunningham, a very intelligent botanist and traveller, gives the following account of the Flax Lilly. "The *Phormium tenax* is indigenous to the Islands of New Zealand. On the northernmost of the Islands [Equatorward] which has been traversed almost in every direction by Europeans, it is found in greater or less abundance, as well on the immediate coasts in low situations, subject to be overflowed by the tide, as in the inland country, generally, in grounds more or less swampy. Extensively diffused as this valuable plant is over the surface of the Island, it is along its western coast to the southward of the parallel of 35°, and in Cook's Streight, that the greatest quantities have been found, where it is said to grow in fields of inexhaustible extent. The indigenous growth of the *Phormium* is not limited simply to New Zealand; for it was long ago discovered in a wild state at Norfolk Island, where it forms long tufts along the cliffs, within the influence of the salt spray rising from the heavy surfs which ever and anon lash the iron bound shores of that small but truly beautiful spot of the Pacific. The preparation of the Flax for their own use, or for exchange with Europeans, is effected by the native women; and their method of separating the silky fibre from the long flag-like leaf of the plant, of which it forms the under surface, appears simple enough. Holding the apex of a *recently cut leaf* between their toes, they make a transverse section through the succulent matter at that end with a *shell*, (which they still employ, although they possess every species of iron edge tool) and inserting the shell (said to be of the Genus *Ostrea*) between that substance and the fibre, readily effect

its separation by drawing the shell through the whole length of the leaf. It is to be observed that the separation is always performed by those people when the vegetable is *freshly cut*; as the leaf contains a gum which causes the fibre to adhere more strongly when dry. Nor have the attempts of Europeans to extract the filaments from the leaf by *maceration*, been at all successful; the experiments that have been made at Sydney, showing that the large proportion of the succulent matter, (for so the failure was accounted for) rendered it impossible to effect the separation by decomposition in water, without *materially injuring the strength* of the fibre. Simple as appears this mode of separating the Flax from the leaf by a shell in the hands of those savages, still the European has not succeeded in his endeavors to prepare the fibre for himself either by *that* or any other means that have been tried; nor has any instrument or piece of machinery yet been invented to enable him to strip off and prepare this valuable filament for the English market. The Port Jackson Traders must still be dependent on the native women and their shells for the cargoes they obtain. The flax thus obtained by the merchants of Sidney, undergoes no heckling, cleaning or other preparation previous to its being shipped for the English market; but it is merely made into bales by being put into a press and screwed. It is manufactured into every species of cordage excepting cables, and Mr. Bigge, the Commissioner of Enquiry to New South Wales, observes in his Report, pp. 52-53, "that its superiority of strength to the hemp of the Baltic, has been attested both by experiments made at Sidney, and by one that was effected under his own observation in the King's Garden at Deptford."

An experienced captain of a merchant vessel who had been 35 years at sea, and many years in the trade between Liverpool and Mauritius, spoke much in commendation of the ropes made of the N. Z. Flax, having employed them in the ships he had commanded. He had proved its superiority to hemp in ropes upon which there is always a great strain on shipboard; such as stays, braces, tacks, sheets, &c. and such were the strength and elasticity (hence its value for *stays*) and durability of fibre of the N. Z. flax the ropes could be made of less dimensions, and therefore more convenient to use than those of Baltic hemp required for the same purposes. A *new main sheet*, (which in a cutter is a rope on which there is ever much stress) after a nine months voyage was still good and serviceable, whereas had the rope been made of Baltic hemp it would have been so worn by strain and friction, it would have been necessary to bend another for the return voyage of 7 or 8 weeks duration.

For many years past, some communication has been kept up by individuals residing at Port Jackson with the natives of New Zealand: but it is only of late that the trade in flax has been found to be a profitable speculation. Of this the merchants of Hobart's town and Launceston in Van Dieman's Land are now fully aware; and having had their attention turned to its advantages, they are beginning to prosecute it with ardour.

From the experiments of Mon. Labillardiere the relative strength of the N. Z. flax is as follows: the fibres of common flax broke under a weight of 11½; of common hemp 16½; and of the Lilly

flax 23 7-11—that is, the N. Z. flax is nearly 50 per cent. stronger than common hemp, and fully 100 per ct. stronger than common flax. These *foliaceous fibres* possess also this further advantage over the *cortical fibres* of flax and hemp; that is, of a brilliant whiteness which gives them a satiny appearance, so that the cloths made of them need not be bleached by a tedious process, or through those other means by which the quality of flax and hemp is considerably injured. M. de St. Fond asserts that the fibres may be obtained from the leaves by boiling them in soap water. Twenty five pounds of the split leaves tied in bundles are immersed into a sufficient quantity of water in which three pounds of soap are dissolved. They are all then boiled during five hours until the leaves are deprived of a tenaceous gluten or of a gumresin; and then they are carefully washed in running water. To me it appears this must be an expensive process—yet as the recent accounts from France state that the whole expense of the mode now pursued to obtain these fibres does not exceed six francs the quintal, it seems that French chemistry must have accomplished the desideratum which English mechanics have attempted in vain. Yankee ingenuity, however, has not yet been engaged in the invention of machinery to effect the separation of these foliaceous fibres by simple scraping only. It is true that the machinery will have to be more complicated than the simple apparatus which will suffice for the leaves of the Agaves, of the Bromelias, of the Yucas, and of all other plants with flat sword-shaped leaves WITHOUT A MIDRIB. The leaf of the N. Z. flax lilly not only has a midrib extending from base to apex, but also towards the butt the sides of the leaf are folded together, and hence simple machinery cannot be easily applied to scrape the entire leaf. Nevertheless, the simple splitting of the leaves into two divisions through the midrib may overcome this difficulty. The simple process of shell scraping by the natives is undoubtedly the very best of all to preserve both the strength and the color of these foliaceous fibres; and hence the high importance of an American invention to effect the same scraping by labor saving machinery. It is not, however, absolutely essential that machinery shall be discovered to render the propagation of the flax lilly profitable in Florida and in our Southern states. Its generic name alone, derived from Phormos, a basket, was given in allusion to one of the uses made of the entire leaves of the plant in its native country. All travellers have spoken with pleasure of the varied uses of the leaves by these rude people for domestic manufactures. Besides their baskets, their mats have excited many encomiums. Some mats are said to be of a peculiarly fine and glossy texture, with deep borders of various devices and different colors worked all round; the style of which, even to a Parisian belle would appear chaste and fashionable. Even the dresses of the natives were made of those leaves, split into 3 or 4 slips, and when dry, interwoven into each other so as to form a kind of stuff between netting and cloth, with all the ends, 8 or 9 inches long, hanging out on the upper side, like shag or thumb matting. They also made a sort of cloth as coarse as the coarsest canvass, but it was "ten times as strong." Immense fishing nets we have seen, are made by simply tying together

slips of the leaves. Of the uses to which the entire leaves and slips of the leaves would be converted to in the United States, some idea may be formed by a reference to the ingenious industry of our countrywomen in the manufactures of hats, bonnets, &c. from the leaves of palms and the stalks of grasses. From strips of the leaves of this flax lilly, hats, bonnets, baskets, &c. would soon be made of much greater beauty, strength and durability than even the celebrated costly hats of Panama; and the price would be reduced proportionately as much as it has been reduced in the price of similar articles now manufactured on the farms and in the families of the New England States when compared with the sum at which they were sold when imported from other countries. Hence the propagation of this single plant alone on the worst soils of the Southern States, would not only cover them with a dense population of small cultivators, but might also triple that rural population by giving employment to their families in really domestic manufactures. At all events the numerous small cultivators of the South would thus be enabled to furnish the cheapest possible raw materials for the numerous small manufacturers of the North; and would thus create a mutually profitable and harmonious dependence of the great masses of population in both sections of the Union on each other.

The increase of the flax trade with the New Zealanders may be inferred from the following statistical facts. In 1828, the export of N. Z. flax from Sidney to England was 60 tons, and valued at £2,600 sterling. In 1830, the same exports ascended to 841 tons; and in 1831 to 1062 tons, for the English market alone. That this flax lilly can be profitably propagated throughout all our Southern States, may be inferred from the fact, that it is profitably cultivated in the Southern Departments of France, and from the still more decisive fact that it has flourished several years in the open air of Charleston, S. C. For my own part, I have not the slightest doubt that it may be spread over all the worst soils of the Southern and Southwestern States, especially in the Pinewoods, Magnolia Swamps, and other evergreen forests between the Potomac and the Mississippi. Should it not extend further inland than the Live Oak or within the influence of the saline atmosphere of the ocean, it merits to be spread over the whole extent of country heretofore covered with the live oak. At all events there is every human certainty that the territory of Florida is especially adapted to the flax lilly, and that it might there be extended over millions of acres, as it is in its native New Zealand and Norfolk Island. My convictions of its certain success in Florida are founded on the descriptions of the climate and vegetation of New Zealand given by all travellers. Although these islands are situated between 34 and 48° S. L. yet as they are very narrow in proportion to their length, their temperature is more moderate and uniform and the atmosphere more humid than would be inferred from their latitudes alone. In a voyage to New Zealand in 1814-15, by John Liddiard Nicholas, Esq. and Revd. Samuel Marsden, they say, in speaking of the Bay of Islands, lat. 35° S. "The climate was so salubrious and inviting, that even in the depth of winter no other change was perceptible than a few refreshing showers,

which gave mellow and vernal softness to the fields while no sudden or violent transitions ever disturbed the serenity of the mild atmosphere." Again on their excursions into the interior of the Northern Island, they remark, "there was one feature of the country which every where struck us with admiration; and that was the fine rich verdure of the landscape wherever we turned our eyes, and which gave us at the same time a high opinion of the genial influence of the climate."—In Hawkesworth's Voyages, v. 3, p. 34, it is said, "From the vegetables found here there is reason to conclude that the winters are milder than those of England; and we found the summer not hotter though more equally warm. Of mosquitoes and sand flies a few were found in almost every place where we went ashore." In another place it is observed that the English vegetables left by Cook on his first voyage continued to propagate themselves, although many of them were too tender to survive a winter in the open air of England. The character of vegetation also confirm my opinions. Many New Zealand plants are such as are found within the tropics or on their borders. The shores in many parts are beset with mangroves; the interior is covered with arborescent ferns, and in many parts the woods are so over-run with supplejacks that it is scarcely possible to force one's way among them. Among the trees were observed two or three kinds of fern like those of the West Indies. At Norfolk Island, where a sort of Spruce Pine trees are very large and very abundant, Cabbage Palms of 10 to 20 feet high are also a spontaneous growth; and here the flax lilly is still more luxuriant than in New Zealand. In New South Wales they give a decided preference to the flax lilly of Norfolk Island both for quantity and quality.

But in both islands, whether in pine forests or undulating savannahs, whether on the seacoast or in the interior, on hills or in valleys, the flax lilly flourishes in the greatest profusion as well in the most exposed as in the most sheltered situations.

Enough, however, I trust, has been said to prove that this flax lilly can be propagated easily, at least throughout all Florida, and probably throughout all our Southern and South Western states. As the fields of France already furnish lilly flax enough to afford employment in manufactories to several thousand workmen, it may be anticipated that the forests of Florida will furnish soon flax lilly leaves enough to employ a million of family manufacturers.

HENRY PERRINE.

WASHINGTON, D. C. 19th Feb. 1838.

HIGH PRICE FOR BULLOCKS.

We learn that Mr. Tonkins, of New Jersey, has sold his two fine Steers to a victualler in Washington, for \$3,500. It will be remembered that these steers are the progeny of a *Durham* bull out of large native cows, and afford strong evidence how admirably suited this noble breed of cattle is to improve our native stock.

LARGE HOGS.

Two hogs, raised in this borough, were weighed alive on Saturday last. One, the larger, owned by Mr. D. B. Meredith, weighed 750 lbs. The

little one weighed 600 lbs. and was raised by Mr. Basil Graves. These animals would have made quite a figure in our Agricultural Exhibitions.

Westchester, Pa. Record.

[These hogs, we presume, are of what is termed the Chester breed, a hog which only needs to be known to be admired. If it would not be giving our friend of the *Record* too much trouble, we should feel ourselves under obligations to him if he would obtain from Messrs. Meredith and Grievés information upon the following points—breed; age; mode of feeding; time of coming to maturity;—whether they thrive best on grass, or swill; whether they take on fat easy, and what their peculiar points of carcass.—*Editor Farmer and Gardener.*

[From the Magazine of Horticulture.]
NEW VARIETIES OF FRUITS.

Pomological Notice; or Notices respecting new and superior varieties of Fruits, worthy of general cultivation. Notice of some new Plums, Pears, Strawberries, and other Fruits. By Messrs. C. & A. J. DOONING. *Notices of several new varieties of Apples.* By the Editor.

WE have not quite as much to communicate, under this head, at the present time, as we had last season, respecting new fruits. Mr. Manning's paper, in our last volume, describing all, or nearly so, of the different varieties of pears which he had proved with any certainty, leaves us little to say about them. There remained, however, twenty kinds or more, which he did not deem proper, from the information he then possessed, to mention. Another season of bearing, it was thought, might be the means of proceeding with their descriptions with more accuracy, and detecting whether they were mere synonyms or distinct varieties. Mr. M. kindly offered to communicate to us his remarks at the conclusion of the season, and our readers may anticipate the pleasure of such information. From various engagements, however, he has, as yet, been prevented from sending us any thing in relation to new fruits of any kind.

In the absence of Mr. Manning's remarks, we now offer our readers some few pomological notices from our correspondents, Messrs. C. & A. J. Downing, of Newburgh, N. Y. We have no doubt but that they will be read with great pleasure and interest. The fruits they mention, with the exception of the pears, are quite new in the vicinity of Boston, and, we imagine, are but little known in the country out of the vicinity of Newburgh. In addition to these, we have supplied some notices of a few varieties of apples which have been exhibited before the Massachusetts Horticultural Society the past year, and noticed in our reports, and which have been pronounced by the fruit committee to be excellent kinds, and worthy of very general and extensive cultivation. They were mostly received from the Rev. H. Ramsdell, of West Thompson, Connecticut, and were produced from trees which had been grafted with scions which Mr. Ramsdell had gathered in various parts of the country which he had visited, and are supposed to be native seedlings. We

have tasted most of them ourselves; and, although we could not fully decide upon their relative merits, we have no hesitation in stating that some of them are equal, if not superior, to many of the old sorts which have been so highly estimated. They are all worthy of trial, and gentlemen who have extensive orchards would do well to engraft such trees as now produce inferior sorts with these varieties.

We have perceived with great pleasure that some new varieties of fruits have been produced from seed in various parts of the country. In our reports of the various horticultural societies in the Union we noticed some new kinds, which have lately come into bearing. We certainly hope that this is but the beginning. It is to our own native seedlings that we must look, especially as regards apples, for superior varieties to take the place of the great number, of foreign origin, which do not succeed in our climate. Many of the English varieties, which have been reported to possess very high qualities abroad, have, with us, been pronounced by good judges as only second or third rate fruits. As yet, the Baldwin, Newtown pippin, and some other American apples, stand before all foreign productions; and there is no reason why, with such parents, a progeny should not be reared in this country, possessing all their vigor and hardness, with an increase in excellent qualities. We hope our cultivators will pursue the subject with that zeal which they ever manifest in the cause of horticulture. Aside from the agreeableness which always attends the rearing of seedling fruits, our gardens will be stocked with a hardy and vigorous race of superior varieties.—*Ed.*

Coe's fine late red plum.—This fine and very late variety has fruited with us for the first time this season, and is worthy of extensive cultivation. The fruit is oval, from three fourths to an inch in diameter, and of a dull red color. It ripens here the last of September and first of October, and if plucked from the tree it may be kept in the fruit-room for a considerable time. The flavor is high, and the fruit juicy and sweet, and it will, no doubt, be a valuable variety for market. We received it from Miller, of the Bristol nurseries, England.

Frost Gage.—This plum, but little known out of this district of country, we consider one of the most valuable varieties in the whole catalogue of fruits. We can trace its origin no farther back than to the farm of Mr. Dubois, of Dutchess county, N. Y., who found the original tree upon his farm, planted, as he believes, by his father. The fruit resembles in form the yellow gage, though considerably smaller than that variety, as well as larger than the green gage: the color deep purple, with a faint suture on one side of the fruit. It is a sweet, juicy, and high flavored plum, and ripening as it does, about the first of October, is a most invaluable variety. Mr. Dubois has a large orchard of the trees, and sends annually a crop of these plums, worth three or four hundred dollars, to the markets in New York. We have forwarded some of the trees to Mr. Manning, and other gentlemen in the vicinity of Boston, and think it will succeed well in Massachusetts.

The Dutchesse d' Angouleme, beurré Diel, beurré Spence, and Easter beurré pears are be-

ginning to bear well in the valley of the Hudson; and we have much pleasure in saying that they fully realize our expectations respecting these highly praised fruits. We particularize these varieties, because we believe them to be the finest late pears in cultivation, and are much gratified to find that, in the soil and climate of the Middle States, so different from that of Europe, and without walls, these pears sustain fully the high reputation given them by pomologists abroad.

Bishop's strawberry.—This is the finest of all strawberries, in our estimation. It is a great bearer, which the famous Keen's seedling, wil-mot's, &c. are not, and of delicious flavor, not tasteless and hollow at the core, like the Methven, while the size is fully equal to that of any of those varieties. The color of the fruit is a deep glossy crimson, and they are borne in rich clusters, presenting a beautiful appearance. It increases rapidly by runners, and appears to us better suited to our climate than any of the large strawberries hitherto imported from abroad.

The Cretan red raspberry.—This is another fine variety of the smaller table fruits, little known, and for which we bespeak a more general cultivation. The fruit is large and fine, rather more tart than the Antwerp, and the plant continues in bearing a long time, which renders it doubly valuable for family use.

Bergen's yellow peach.—A new and most excellent American freestone. Size large, color deep yellow, with red cheek, full of juice, and of a rich and most delicious flavor and perfume. It has borne here for the second time only, and the fruit equals, if not surpasses, any other variety in beauty and excellence.

Large haw or thorn apple.—Mr. Longworth, of Cincinnati, one of the most distinguished horticulturists of the West, writes us, in a recent communication, that he discovered, in the interior of Ohio, twenty-five years ago, a variety of haw, with fruit the size of a crab-apple, having a delicious flavor. He has lately rediscovered it, and has kindly promised to forward us some grafts. Should it prove as fine as he anticipates, it will be quite an addition to our fruits, as it is, probably, very beautiful in appearance.—*C. & A. J. Downing, Botanic Garden and Nurseries, Newburgh, N. Y.*

Apples in the collection of the Rev Mr. Ramsdell.—The following varieties were forwarded to the Massachusetts Horticultural Society for exhibition in the latter part of October. We give the remarks of the committee, with some additions of our own. We name in course, as they appeared to us to possess superior merits.

Winter Chandler.—This is pronounced a first-rate winter variety, after the trial of two seasons. It may be described as follows:—Fruit large, round; stalk large, quite short, and set in a deep cavity; color yellowish-green and dull-red, with various stripes of a deeper tint, particularly on the side next the sun; flesh firm and juicy, with a very rich flavor, equal to the Baldwin; altogether a most delicious fruit. The tree is a constant and abundant bearer, and in eating from December until March.

Enfield pearmain.—Another excellent variety. Fruit medium size, round; flesh juicy, with a fine flavor. An abundant bearer, keeping well until

February or March. It is very highly esteemed at Enfield, in Connecticut, from whence its name.

Winter greening.—Fruit above medium size, very fair, of a round, but rather flattened form; stalk remarkably long; color green, with a slight blush on the sunny side; flesh breaking, juicy, sweet, relieved by a lively and somewhat astrigent acid, with an excellent flavor. A great bearer, and every way a valuable fruit.

Ramsdell's red sweeting.—Fruit above medium size, of a conical form; color fine dark crimson, covered all over with minute yellow spots, and with stripes of deep crimson on the side exposed to the sun; flesh firm, fine and mellow, sometimes cracking at maturity, juicy and sweet, with a delicious flavor: the whole fruit is covered with a dense and beautiful blue bloom, like the blue pearmain. The tree is a constant and abundant bearer, and the fruit is considered one of the most valuable in cultivation. In eating from October to January. Named in compliment to the Rev. Mr. Ramsdell, by the committee, for his exertions in collecting together the various kinds of apples which he has twice forwarded to the Society for exhibition.

Red pumpkin sweet.—Fruit very similar in form to Ramsdell's sweet, and of the same size; color fine dark crimson, with stripes of a deeper tint, and minute black dots or points; flesh fine and mellow, with a sweet delicious juice. Ripe in October, and in eating until January. The tree is an enormous bearer, producing great crops every year. The tree from which the specimens exhibited were taken, required, last year, twelve props to enable it to bear up the great weight of fruit with which the branches were loaded. It is stated that one gentleman has commenced an orchard, to be planted with this variety alone, being persuaded that no other fruit would prove so profitable, or yield so great crops.

Sweet winter.—Fruit medium size and round; color green and pale red, faintly striped with a deeper shade on the side exposed to the sun; flesh tolerably firm, sweet, with a very slight acid. In eating from December until May. It is a most productive fruit, and worthy of cultivation.

The other varieties sent by Mr. Ramsdell, and considered very good, were the pomme Royal, Nichols's sweet, and yellow gilliflower, with three or four unnamed kinds of some merit.

In addition to these, Dr. Burnet of Southborough communicated to the Horticultural Society some new varieties of apples, among which was the following:—

Louyscom apple.—Fruit large, round, and of a regular form; color green, covered nearly all over with broad broken stripes of pale red; flesh tender, juicy, sweet, with a just proportion of acid, and a delicious aromatic flavor. In eating from October to November. Pronounced by the committee to be a noble fruit. We recommend it to the notice of amateurs and nurserymen for trial.

Dr. Burnet first introduced to notice a very excellent pear, which was named by the Society, in compliment to him, the Burnet pear. We shall notice this fruit at another time.

We hope, in our next, to present our readers with some notices from Mr. Manning, together with some remarks of ours upon a few other new or but little known fruits.—*Ed.*

[From the Indiana Farmer.]

CHURNING BUTTER IN WINTER.

There is no farmer's wife who has not often difficulty of getting the Butter to come in winter, and we feel assured that to most the following communication will be acceptable.

When the last roll of butter is almost gone, the prudent housewife feels the importance of procuring as much good butter as possible from the cream that has been collecting, for a week or more perhaps from the milk of one cow, and thus she will churn the usual length of time with careful management, yet it will sometimes happen that the butter (as the phrase is,) will not come and she may churn for several hours and there will apparently be no change, the particles of butter remaining perfectly disunited.

The writer of this article has recently been in a similar dilemma. I feel a wish to inform my sister butter-makers the means I used which so successfully removed the difficulty. I churned perhaps three hours to no purpose, and then tried to think of some remedy that I had read in the Indiana Farmer, or some other periodical, I could not remember precisely, but I recollected the reason stated, was the cream being too sour; I then thought of soda, (pearlash I presume would do as well,) and dissolved a large teaspoonfull in a pint of warm water, and as I poured it in churning at the same time it changed in a moment and gradually formed into a beautiful solid lump of sweet butter.

As this is I believe my first effort in writing for publication, I hope the Editors of the Farmer will devote a corner of their useful paper to this article and oblige one who loves to economise in time and labor in domestick affairs.

PRUDENCE.

COTTON FACTORIES IN NORTH CAROLINA.

We have much pleasure in stating that there are now three Cotton Factories in successful operation in Orange county—one at the High Falls of Haw River, owned by Messrs. M'Custin, Trolinger, & Co.; one on Alamance, owned by Messrs. Holt & Carrigan; and the other by the Cain Creek Manufacturing Company;—all of which seem to promise a liberal return to their enterprising owners for the capital they have invested in them. Each of these establishments are about equal in size, and are calculated to hold about 2000 spindles. There are now running something more than 500 spindles in each; and from the known perseverance and industry of their owners, there is little doubt that the whole area of these buildings will soon be filled with machinery, and the full complement of spindles put into operation. We have had opportunities of examining the yarn produced at each of these establishments, and hesitate not to say that it is fully equal to that from any of the Northern factories. We understand that the Cain Creek Company intend in the spring, to introduce looms into their factory, and thereby be enabled to convert their yarns into cloth. We presume the others also contemplate doing the same thing.—*Hillsborough Record.*

TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$20 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$20 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Seythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms, and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled entire all orders in the Agricultural and Seed Departments.

feb 13

JOHN T. DURDING & Co.

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

jan 30

J. S. EASTMAN.

law 3w

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

KENTUCKY BLUE GRASS SEED.

Just received from the South West a lot of Kentucky Blue Grass Seed. This grass is particularly desirable for pastures and for hay, and forming fine green or rather blue lawns, &c.

R. SINCLAIR, Jr. & Co.,
Light, near Pratt-street, Balt.

CONTENTS OF THIS NUMBER.

Notice of an essay on the New Zealand flax lily—barilla ashes as a manure—Kentucky stock book—agricultural society formed in Kent county, Md.—machine for mortising posts and sharpening rails—early white Corn—useful receipts—Mr. Ellsworth's suggestions for an agricultural bureau in the patent office—testimony in favor of spring wheat—essay of Dr. Perrine on the New Zealand Flax Lilly—high price for bullocks—large hogs—new varieties of fruit—churning butter in winter—cotton factories in North Carolina—prices current, advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	7 00	8 50
CORN, yellow	bushel.	70	72
White	"	75	76
COTTON, Virginia,	pound	10	12
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	45	50
FLAXSEED,	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's,	"	—	—
Super How. st. from stores	"	7 87	8 25
" wagon price,	"	7 50	7 75
City Mills, super,	"	8 00	8 25
" extra	"	8 25	8 50
Susquehanna,	"	—	—
Rye,	"	6 50	—
Kiln-dried Meal, in hhds.	hhd.	20 50	—
do. in bbls.	bbl.	4 12	—
GRASS SEEDS, wholes. red Clover,	bushel.	5 25	5 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hoes, on the hoof,	100lb.	—	7 50
Slaughtered,	"	6 25	7 00
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LINE,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	—
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	5 50	—
Ground,	barrel.	1 50	scarce
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	85	90
Susquehanna,	"	—	—
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappry, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 70	1 80
Red, best	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls. }	gallon.	33	—
" in hhds. }	"	34	—
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35 40	18 20
Three fourths Merino,	"	30 35	18 20
One half do,	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,	"	28 30	18 20

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured,	pound.	13	13½
Shoulders,	"	11	—
Middlings,	"	11	—
Assorted, country,	"	10	—
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old,	each.	5 00	6 00
Cows, new milch,	"	30 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 68	—
CHOP RYE,	"	1 50	1 62
EGGS,	dozen.	12½	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	3 00	—
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,	"	5 75	—
Cod, salted,	cwt.	3 00	3 25
LARD,	bound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virgi. 1½a1½
Branch at Baltimore,	do	Bank of Virginia,
Other Branches,	do	Branch at Fredericksburg, 1½
MARYLAND.		Petersburg,
Banks in Baltimore,	par	Norfolk,
Hagerstown,	½a	Winchester,
Frederick,	do	Lynchburg,
Westminster,	do	Danville,
Farmers' Bank of Mary'd, do	do	Bank of the Valley, ..
Do. payable at Easton,	do	Branch at Romney, ..
Salisbury,	1 per ct. dis.	Do. Charlestown, ..
Cumberland,	par	Do. Leesburg, ..
Millington,	do	Wheeling Banks, ..
DISTRICT.		Ohio Banks, generally 6a7
Washington, }		New Jersey Banks gen. 5
Georgetown, } Banks, ½p.c.		New York City,
Alexandria, }		New York State,
PENNSYLVANIA.		Massachusetts,
Philadelphia,	par	Connecticut,
Chambersburg,	½	New Hampshire,
Gettysburg,	do	Maine,
Pittsburg,	¾	Rhode Island,
York,	¾	North Carolina,
Other Pennsylvania Bks. 2		South Carolina,
Delaware [under \$5] 4		Georgia,
Do. [over 5]	1½	New Orleans,
Michigan Banks,	10	
Canadian do,	10	

AGRICULTURAL SEEDS, &c.

R. SINCLAIR, jr. & Co. Light-street near Pratt-st. Wharf, offer for sale

ITALIAN SPRING WHEAT, received from Northern growers of undoubted character.

DUTTON, or YELLOW FLINT CORN esteemed for great product on ordinary land, early ripening, &c.

BADEN, or PROLIFIC CORN; this Corn was introduced by Mr. Baden, a Maryland Farmer, and is highly recommended for great product of corn and fodder. The late ripening of this corn adapts it particularly to the Southern States, requiring the best soil and long season to produce a full and mature crop.

Large Yellow MISSOURI CORN, White Flint or Mandan, and several other varieties for small garden plantations.

POTATOE OATS, weighing 40 lbs. per bushel.

AND FOR SALE American and European FIELD SEEDS of every description.

GARDEN SEEDS—A full assortment, warranted fresh and genuine.

AGRICULTURAL and GARDEN IMPLEMENTS and TOOLS, consisting of such as are most esteemed by the Cultivator for usefulness and despatch.

feb 6

3w

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street, near Pratt, three doors in the rear of Dinsmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT; BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; BUCKWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS, WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by

JOHN T. DURDING & Co.

At their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinsmore & Kyle's. N. B. Fruit and Ornamental Trees furnished to order by giving timely notice—double Dahlia and other bulbous roots, together with flower Seed of superior kinds, furnished to order.

feb 13

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old Nortown Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr. dam, (Layd Sarah) by Pilot; gr. gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, for pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Soroor, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish.

feb. 13.

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 45.

BALTIMORE, MD. MARCH 6, 1838.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. W. corner of
Baltimore and North streets, over the Patriot office, at two
DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

BALTIMORE: TUESDAY, MARCH 9, 1838.

We think it would be eminently worthy of the
patriotism of the members of our legislature, be-
fore they adjourn, to form a *State Agricultural*
Society. Such a movement would lead to the
formation of auxiliary societies in each of the
counties where none now exist.

Our subscribers are earnestly requested to re-
mit us *by mail*, the amount they may each owe
us.

Eastern Potatoes.—Several vessel loads of
Eastern potatoes—*Mercers* and *Pink-eyes*, are
wanted in this market for seed.

Mr. Jefferson Shields.—On the 20th of Sep-
tember 1836, we published a communication from
this gentleman, announcing that he had discover-
ed a preventive against the ravages of the *Hes-
sian Fly*, and that he would speedily give it to
the agricultural world in the form of a pamphlet.
—As nearly 18 months has since elapsed and the
promised work has not made its appearance, and
as many enquiries have been made of us touching
the cause of its delay, which we were unable to
answer, we take this method to respectfully jog
Mr. Shields' memory, under the hope that he will
favor the public with his long promised and anx-
iously looked for publication. We have no doubt
it would sell well.

ENCOURAGEMENT TO AGRICULTURE.

We have been politely favored by the editor of
the *Cultivator* with copies of *two Reports* made
to the legislature on the 6th and 10th instants, by
the Committee on Agriculture, through their
Chairman, *L. F. Allen, Esq.* The first report
was accompanied by a bill to encourage the cul-
ture of silk, the which we did not receive; but
have no doubt, from the tenor of the report itself,
that its provisions are salutary and will effectuate

the object in view. The second report is also ac-
companied by a bill for the encouragement of
general agriculture, which latter, we copy, as well
as both the reports, believing it may be found
useful to such other legislative bodies as may
have the subject of encouragement to agriculture
under consideration. We thank the editor of the
Cultivator for placing these documents thus early
in our possession, as they are highly interesting,
and reflect much credit on their author. Their
facts are at once useful and instructive, and the
arguments by which they are enforced no less
conclusive than well expressed.

From all the indications which we see and read,
we believe the period has arrived, when legislators
are disposed not only to listen to statements of
the wants of agriculturists, but when those wants
will be provided for. Nothing, we are sure, but
the most besotted infatuation of rulers can longer
withhold that support so imperiously demanded
by those peculiar circumstances by which the pro-
ducts of our land have been lessened in quantity,
and the nation, itself, reduced from the proud atti-
tude of being the storehouse of other nations,
whence to draw their bread stuffs, to a dependent
upon Europe annually for upwards of seven or
eight millions of dollars worth of those commo-
dities for the consumption of our people. If the
necessity for this importation arose from a too
limited territory to produce supplies, the evil
would be endurable; but as we have land in ab-
undance to sustain a thousand times our present
population, the fact of our not raising bread en-
ough to meet our demands reflects any thing but
credit upon us, and points with a force that should
not be disregarded, a moral that we fain would
hope will teach us the ways of wisdom.

AGRICULTURAL SOCIETIES.

We observe by the last *Belvidere Apollo*, that
the incipient measures have been taken to form an
Agricultural Society in Warren County, New Jer-
sey: by the *Village Record*, we learn that a very
large meeting of the farmers of Chester and Del-
aware counties, Pennsylvania, has been held in
the borough of Westchester, and a committee ap-
pointed to draft a constitution for a similar socie-
ty for those two counties. The meeting was or-
ganized by calling Dr. Darlington to the chair;

subsequently to which, committees were appoint-
ed to draft resolutions and prepare a constitution
for the government of the Society. At the head
of the latter, for Chester County, we observe the
name of Dr. Darlington, a gentleman as distin-
guished for his agricultural zeal, and botanical ac-
quirements, as he is eminent as a physician. The
right spirit prevailed, as we learn from the Re-
cord, and the meeting "composed of the right ma-
terials—the bone and sinew of the counties, the
hardy, industrious, intelligent and persevering far-
mers—those who know how to make a poor farm
rich." And in our last week's paper will be found
the proceedings of a meeting of the farmers of
Kent County, Md. for the purpose also of forming
a kindred society.

These movements, almost simultaneous in three
neighboring states, speak well for the cause; and
we sincerely hope, that the noble feelings that
have prompted them may spread in every direc-
tion—that they may move onward until they pen-
etrate the bosoms of every man engaged in hus-
bandry in our country, as we are sure that nothing
is so well calculated as such associations to further
and promote the best interests of Agriculture.—
Almost every other class of Society have institu-
tions peculiar to their respective callings; and
why should not the farmers and planters have
theirs?

As the spirit of forming Agricultural Societies
seems to be abroad in our land, we would respect-
fully make one recommendation to those having
charge of the Constitutions—it is this—that an
article should be engrafted on each, making it ob-
ligatory upon each member to furnish, at each an-
nual meeting of the society to which he may be-
long, an essay on some agricultural subject, a pa-
per descriptive of some experiments he may have
made, or a statement of his mode of culture. If
such provision were to form a part of the Consti-
tution of each Agricultural Society, and be faith-
fully carried out, a body of agricultural informa-
tion would be gotten together, that would prove
of incalculable value to the whole country;
the which, if published in some agricultural paper
convenient, would diffuse a mass of knowledge
throughout our wide spread limits, whose benefits
would be as lasting as our mountains. If it
should be said, that every farmer cannot write suf-

ficiently well for publication; we reply, that the plain homespun statements of unpretending farmers and planters, detailing in their own way and phrase, the operations of their labors, would, to a large body of readers, be not only acceptable but instructive. Who is there among us when he reads of the product of a farm, but likes to see the manner of culture detailed? None. And who is there so well qualified to perform this office, satisfactorily, as the practical man? None. —But then if there be some to whom writing is a labor, there are also a large body of well educated agriculturists in every county, whose *essays* would challenge admiration by the propriety of their style and beauty of diction. To such, the labor would prove a pleasure, while the community would be enlightened by the soundness of their views; so that let us view the matter in whatever light we may, much good is likely to flow from the measure we propose; and we hope it may be received as favorably as it is well intended.

WORK FOR MARCH.

ON THE FARM.

The thrifty husbandman, who regards his interest and watches with becoming circumspection the return of seasons, looks forward to the coming of this month with more than ordinary solicitude; for, as of old, it was the commencement of the year, so is it in many parts of our extensive country the beginning of the labors of the field. —In years by-gone, ere those radical changes in our seasons had been wrought, March was hailed as the one of all others among her sisters, as the month in which the presiding Deity visited us with shrewd and piercing winds—when it was almost at the cost of a man's ears to face the howling blast that moaned so piteously in its north-western tour; but so changed of late are all things that belong to our climate and seasons, that the ken of man cannot penetrate the mysteries of either—so ever varying, so eccentric, have both become, that far-seeing philosophy finds itself at fault in all its calculations, while experience teaches, and duty enjoins upon us all to await the developements of time, with emotions of gratitude and resignation, as it may best please Him who soothes the agonized of heart, to fashion them to our wants. But amidst all this incertitude, March is still pregnant with toils, with fears, and anxieties, for those who look to the earth as the storehouse of their wordly weal; and such being the case, let us see what are those appropriate labors which it becomes us to perform.

Fences.—Let all your fences be carefully examined, and thoroughly repaired or renewed, as circumstances may require, as without substantial enclosures, such as will resist the depredations of your own and neighbor's stock, your labour may be rendered of but little value.

Stock.—Let your stock of all kinds be carefully attended to this month as it is one peculiarly trying to the whole animal race.

As a preventive to the hollow-horn, put a teaspoonful of the spirits of turpentine, at least twice this month in the cup or cavity in the back of the head of your cows and oxen.

Spring Wheat.—Sow your spring wheat any time this month, or even up to the middle of the next, taking care to plough and pulverise your ground well before sowing. One bushel to the acre is sufficient.

Barley.—As soon as the frost is out of the ground get in your barley. If your ground was broken up last fall so much the better. Sow from 6 to 8 pecks to the acre.

Oats.—We need not tell the prudent farmer that the sooner he gets in his oats, after the frost is out of the ground the better, as his experience will have taught him. From 2 to 2½ bushels to the acre should be sown.

Grass Seeds.—Let us advise you to sow clover on all your wheat, rye and oats, whether you intend them to remain in grass or not—for you may be assured that it will serve to keep down weeds, and that even though you should plough them up in the fall you will derive great advantage in the melioration of your soils from what you may turn in. Should you design any portion of your clover to remain for meadows, sow at least 12 lbs. of clover seed and half a bushel of herds' grass to the acre; if clover *alone*, from 12 to 16 lbs. will be the right quantity.

Rye Grass.—This is a productive and early grass, and nutritious withal, therefore try an acre of it, as it lasts for many years and yields well.—Two bushels to the acre if sown alone is the proper quantity—if with clover 1 bushel to 12 lbs. of the latter to the acre.

Lucerne.—If you purpose making an experiment on this grass, select a rich dry soil, which should be previously well ploughed, pulverized and cleaned, and sow 20 quarts of seed the acre.

Potatoes.—Get in your early potatoes as soon as the frost is out of the ground and the soil tolerably dry, plough thoroughly, pulverize well, strike your furrows, plant your potatoes, cover them well with long manure, keep them clean from the time they make their appearance until

you lay them by, and you may calculate on a good crop.

Carrots, Parsnips, Beets, Mangel Wurtzel and Sugar Beet may all be sown this month, as soon as the frost has been sufficiently long out of the ground to dry the soil.

Manures.—Lose no time in carting out your manures. If you have any *new* ground apply *lime* to it for the double purpose of decomposing the roots and other vegetable matter it contains, and of neutralizing the acids which always abound in it.

Tools and implements.—Examine them and have them all ready for active operations.

In conclusion, we would have you bear in mind that if you have no long manure to spare for your *potatoes*, that leaves from the woods, pine shatters, sea-weed, marsh mud, scrapings of your barn yard, lanes and roads, will form an excellent substitute, and greatly add to their productiveness.

Coal Ashes.—A highly important document has been presented to the public in the form of a report to the Board of Assistant Aldermen of New York, on the subject of coal ashes. By this report, it would seem that an article which has hitherto been considered a nuisance, is in fact very valuable, both for purposes of fuel and manure. The report states that the fine cinders sifted from the ashes proper, ignite readily, and burn well, and can therefore be turned to good account as fuel, producing a great saving in the course of the winter. One gentleman who consumed considerable coal, kept three fires constantly burning with his coal ashes alone. Another says that he had 28 or 30 tons of ashes sifted at considerable expense, and that he still made a considerable saving by the operation. It also appears that the fine dust or ashes proper, may be used to advantage as a manure, and has been so employed for a long time, in England. If these statements should prove correct, our city corporations instead of using the coal for filling up wharves and sinks, as we believe has hitherto been the case, will find it to their advantage to turn them to profitable account, as it appears that a rich income may be produced out of that which was before a profitless waste.—*Brooklyn Adv.*

Important to Tanners.—It is stated that Dr. W. ZOLLIKOFFER, of Middleburg, Md., has obtained a patent for a new discovery in the art of tanning, being an improved process of *bating* all kinds of hides and skins, in one to nine hours.—The texture and complexion of the leather that is tanned after the operation of this bate, is said to lose nothing in comparison with that which has been bated in the old way.—*Patriot.*

Commerce of Boston.—The foreign arrivals at the port of Boston for the year 1837, were 223 ships and barques, 552 brigs, and 805 schooners, 1 ketch and 1 galliot—showing an increase on the previous year of 186 sail. The coastwise arrivals were 1000. The total clearances 3837—of the foreign clearances, 671 were American, 683 English.

INTERESTING ANALYSES.

The subjoined table will be found interesting to every inquiring mind engaged in cultivating the

earth, affording as it does safe criteria by which to determine the relative value of the several vegetable substances whose analyses are given therein.

NUTRITIVE MATTER OF VEGETABLES.

A TABLE, shewing the quantities of soluble or nutritive matters afforded by a 1000 parts of different vegetable substances. The analyses were made by Sir Humphrey Davy, except those of the grasses, which, with the exception of that of florin, which was by Sir Humphrey, were by Mr. Sinclair, gardener to the Duke of Bedford. All these substances were submitted to experiment green and in their natural state, to which is added by the Editor of the Farmer and Gardener a column shewing the per centum proportion of nutritive matter.

NAMES OF THE VEGETABLES OR VEGETABLE SUBSTANCES.	Nutritive matter in 100 p's	Whole quantity of soluble or nutritive matter in 1000 parts.	Mucilage or Starch.	Saccharine matter or sugar.	Gluten or Albumen.	Extract or matter rendered insoluble during evaporation.
Middlesex wheat, average crop, -	95½	955	765	—	190	
Spring wheat, -	94	940	700	—	240	
Mildewed wheat of 1806, -	21	210	178	—	32	
Blighted wheat of 1804, -	64	640	520	—	130	
Thick skin'd. Sicilian wheat of 1810	95½	955	725	—	230	
Thin skin'd do do 1810	96.1-10	961	722	—	239	
Wheat from Poland -	95	950	750	—	200	
North American wheat -	95½	955	730	—	225	
Norfolk Barley -	92	920	790	70	60	
Oats from Scotland, -	74.3-10	743	641	15	87	
Rye from Yorkshire, -	79.1-5	792	645	38	109	
Common Bean, -	57	570	426	—	103	41
Dry Peas -	57.2-5	574	501	22	35	16
Potatoes -	20 to 26	200 to 260	155 to 200	15 to 20	30 to 40	
Linseed Cake -	15.1-10	151	123	11	17	
White Beet -	15.9-5	136	13	119	4	
Red Beet -	14.4-5	148	14	121	18	
Parsnip -	9.9-10	99	9	90	—	
Carrots -	9.4-5	98	3	35		
Common Turnips -	4.1-5	42	7	34	1	
Swedish Turnips -	6.2-5	64	9	51	2	2
Cabbage -	7.3-10	73	41	24	8	
Broad leaved Clover* -	3.9-10	39	31	3	2	3
Long rooted Clover -	3.9-10	39	30	4	3	2
White Clover -	3.1-5	32	29	1	3	5
Sainfoin -	3.9-10	39	28	2	3	6
Lucerne -	2.3-10	23	18	1	—	4
Meadow fox-tail grass† -	3.3-10	33	24	3	—	6
Perennial Rye Grass -	3.9-10	39	26	4	—	5
Fertile Meadow Grass -	7.4-5	78	65	6	—	7
Roughish meadow grass -	3.9-10	39	29	5	—	6
Crested Dog's-tail grass -	3.1-2	35	28	3	—	4
Spiked Fescue grass -	1.9-10	19	15	2	—	2
Sweet scented soft grass -	8.1-5	82	72	4	—	6
Sweet scented vernal grass -	5	50	43	4	—	3
Fiorin -	5.2-5	54	46	5	1	2
Fiorin cut in winter -	7.3-5	76	64	8	1	3

*It appears by this analysis that clover contains 9-10ths of 1 per cent. more nutritive matter than timothy.

†The timothy grass of America.

We had prepared the above table for publication, when we noticed the subjoined one in the American, which as it embraces a few articles not tested by Sir Humphrey, we insert it, with an additional column denoting those items in which the analyses differ with those made by him.

"The following statement, showing the proportion of nutritious matter contained in the articles therein named respectively, will demonstrate the erroneousness of the notion generally en-

tained in favor of animal food. It will be easy for those who examine the table to compare the relative value of the commodities so far as support of strength is concerned. Some of our readers will be astonished to learn that, in the words of a correspondent of the New Ark Daily Advertiser, "one loaf of good home made bread will feed you as long as a leg of mutton, and an Irish potatoe is better for you than a pound of pork."

100 lb. wheat contains 85lb. nutritious matter; according to Sir H. Davy, about 95½

" Rice,	80	do	
" Barley,	83	do	92
" Beans,	89 to 92	do	57
" Peas,	93	do	57
" Lentils,	94	do	
" Meat (average)	35	do	
" Potatoes,	26	do	20 to 26
" Beets,	14	do	13.5 to 14.5
" Carrots,	10	do	9.4-5
" Cabbage,	7	do	7.3-10
" Greens,	6	do	
" Turnips,	4	do	4.1-5

From the Tennessee Farmer.

THE BENEFACTORS OF AGRICULTURE.

It may not be uninteresting or unprofitable, rapidly, to retrace the annals of the past, and note some of the names and events connected with the art and the science of agriculture. Such a retrospection, in fact, is fruitful of reflections and lessons of the highest practical importance to the farmer.

The first "book-farming" which history records, is that of the poet Hesiod—the cotemporary of Homer, whose poem, "the Weeks and Days" besides the instruction imparted to the tiller of the soil, and the suavity of its elegant verse, is interspersed with moral sentiments and reflections not unworthy the philosopher of a more enlightened age.

The Chaldeans, Egyptians and Phœnicians each made great advances in the subjugation and tillage of the soil; and the celebrated Carthaginian general Mago wrote voluminously and judiciously on the subject for the benefit of his countrymen, who, diligently studied and successfully practiced his precepts and instructions.

The polite and luxurious Athenians, acquiring the arts of husbandry probably from the Phœnicians (who diffused their knowledge of agriculture throughout the islands of the Mediterranean) claim the honor of first introducing the cultivation of grain to the rest of the Greeks—who, very sagaciously to be sure, soon made the discovery that bread was both more palatable and more healthful than the acorn for which it was substituted.

We are all familiar with the fact that the Romans held the cultivation of the soil in the highest regard. The citizens most illustrious in war and in literature did not disdain to engage in the manual labors of husbandry, and he who had served the State most brilliantly, claimed as his richest reward, the privilege of retiring to rural life. The Roman (as also the Greek) writers on agriculture, were very numerous. The illustrious Cato (the Censor) found time, amidst the engagements of subjugating provinces, and administering the laws of the empire, to write a lengthened treatise on the subject.

Soon after the advent of the bloody dynasty of the Emperors, however, the art was neglected and languished for a long period, until revived in the Eastern empire by Constantine the 4th, who, probably in person, compiled a compendium of the best precepts and practices to be found in the writings of past ages; and publishing this work un-

der the title of "Geoponics" for the benefit of his subjects, a fresh impulse was given to the pursuits of husbandry. It was, however, of short duration. Amid the civil convulsions which so long distracted the Eastern empire and the incursions of the Northern barbarians who devastated the Western even to its utter extinction, the art again slept until towards the close of the 15th century—when Crecenzio the Italian, and others of his countrymen, revived an interest in it by their admirable works on the subject—works, the benefits of which were felt centuries after their authors had slumbered in the dust.

About the beginning of the 17th century, the French manifested great interest in agriculture, and many voluminous works were written. But the Flemings, perhaps availing themselves of the light thus imparted, soon became the most judicious and successful farmers in Europe. It is, indeed, curious to observe how many of the vital principles of agricultural prosperity this heavy-headed people adopted, at this early period, and carried out into the most successful practice.—One of these principles was to cultivate but a small parcel of land and to cultivate it like a garden. Another was the growing of the best and tenderest grasses—so as to avoid the necessity of keeping too many servants and draught-cattle. In connexion with this, another admirable idea was the cultivation of root crops—in the course of which they discovered that 10 acres, thus worked, would produce more sustenance for farm stock than 40 acres in the common farm grass. They were also the discoverers of half a score of new kinds of manures. And to their immortal honor, be it recorded, they were the first of the moderns who ploughed in green crops to improve the soil, and also the first to resort to that indispensable agent of the wise farmer—compost manure.

At the termination of the European wars of the first half of the 18th century by the peace of Aix-la-Chapelle, the arts of agriculture were again cultivated, with great assiduity, by all the late belligerent powers, from motives of state policy. The art was, thus, greatly improved; the science made a part of the regular course of study at many of the most respectable universities of Europe; and academies sprung up, societies were organized, periodicals established, and regular works published—all devoted, exclusively, to agricultural improvement. In this honorable enterprize, England has acted conspicuously. The list of her writers on agriculture is long and respectable; her kings and nobles have, personally, encouraged and fostered it. Her Royal Society has greatly promoted the science by its enlightened labors. But above all, her national Board of Agriculture, projected by Sir John Sinclair—honour to whom honour is due—has probably been more largely instrumental in the advancement of the art in that kingdom than any other agency whatever. Colaterally with this great influence we might mention the names of Young and Bakewell (familiar to the people of this country) who greatly aided the agricultural interest—the one by his popular writings, and the other by his practical and eminently successful experiments in the breeding and improvement of live stock of various kinds. Nor would it, perhaps, be just to omit, in this latter department, the highly judicious and triumphant labours of his Grace the Duke of Bedford. The

root culture in Great Britain, has also been carried to a high state of improvement—a system, probably, as deeply identified with her agricultural prosperity as any other department of her rural labors.

In our own—our native land, while we find much to admire in the farming of some parts of the Union, and still more upon which to ground cheering hopes for the future, candour, *now*, compels the confession that we are lagging greatly behind our opportunities, and the example and enterprize of other nations. A single fact (which we have heretofore noticed) will exemplify this fully. Great Britain, with her little handful of soil, and with *considerably less than one half the number of agriculturists*, supports a larger population than we do with our immense territory and far more genial climate! Our hopes for the future, however, are well grounded. An increasing interest is felt in agricultural pursuits; a most commendable enterprize in the propagation of the best breeds of foreign and native improved stock is manifesting itself in various sections of the country; good examples of legislation and public spirit are exhibited in several States; and, last but not least, a large amount of scientific and practical talent is now engaged in disseminating useful knowledge of husbandry, and waking up an interest in its pursuits throughout the Union. We have indeed been particularly gratified in undertaking the editorship of this print to find, from the character of our exchange papers, that we are thrown into professional association with so much intelligence and science and literary ability. These are, certainly, prognostics of solid improvement and a better day—a day when agriculture shall be introduced into our universities, and boast her own seminaries—and find herself upheld by the parental hand of a wise and judicious government.

In the above rapid and imperfect sketch, and in fact throughout all the annals of husbandry, we cannot shut our eyes to the striking fact, that wherever any signal impulse has been given to agricultural pursuits, or any remarkable advancement of the art effected, it has been, invariably, preceded or accompanied by the lights of knowledge—scientific as well as practical. In other words, all the great improvements, in the cultivation of the soil, are the legitimate results of "book farming"—a term often pronounced, with vast contempt, by supercilious flippancy and malignant ignorance. Let it never be done again. Let no one decry that *knowledge* of his calling, which is, emphatically, *power*, of the most effective description, in contending with the adverse propensities of a cursed and stubborn soil.

IMPORTANT PAPERS.

IN NEW YORK ASSEMBLY.

Report of the committee on agriculture, on several petitions to encourage the growth of silk.

Mr. L. F. Allen, from the committee on agriculture, to whom was referred ten several petitions from the county of Warren, praying for legislative encouragement to the growth of silk, Reports:

That in their estimation, the period has fully arrived, when the domestic policy of the State of New-York should be directed towards encouraging, by every reasonable consideration, the growth

of this valuable product within her own territory.

Although the article of silk has for many centuries been denominated one of luxury, yet within the last thirty years it has become of such universal consumption with nearly all classes of our population, as to be now considered of established necessity.

From numerous experiments, long and successfully tried, in the northern States, it has been satisfactorily tested that not only the mulberry, the favorite food of the silk worm, but that the insect itself will flourish in the highest perfection. In different districts of New-England, for half a century, silk, to a considerable amount, has been manufactured for domestic consumption: and further and more critical experiments have established the fact, that its cultivation and manufacture may succeed in our own country, to an almost indefinite extent. The consumption of imported silks, which in 1821 amounted to less than three and a half millions of dollars, had, in 1836, a period of fifteen years, increased to the enormous sum of fifteen millions for the United States alone; an amount greater, by several millions, than the whole exported agricultural production of the States north of the Potomac.—And when it is considered, that by a proper encouragement given to our population, in exciting their industry to the production, of this valuable article within our own borders, a large proportion of this expenditure can be saved to our people, the policy of such a measure may be well considered by the Legislature of our State.

The cultivation of silk is an object, perhaps, more congenial with the domestic habits of the farming population, than almost any other of our household employment.

It is calculated, as your committee believe, to re-establish and maintain that valuable branch of *home* industry, (the loss of which must finally result in a loss of much national virtue,) and in the promotion of the most delightful relations of rural life. The establishment of extensive manufactories among our people, has already drawn thousands of our families and children from the farmhouse; and although your committee would not speak in terms of disparagement of those important branches of our national industry, yet they would earnestly recommend to your consideration, the encouragement of those quiet and domestic pursuits which tend to the encouragement of rural labor at home.

The rapid improvements which the past twenty years have made in cotton and woollen machinery has almost entirely driven the loom and the spinning-wheel from our farm houses, and village factories have nearly depopulated many of our farming districts of this most charming of their household attractions. To again awaken the busy hum of domestic industry in the dwellings of our rural population, to add to the comforts and the happiness of their firesides, and to encourage a valuable employment among those who, from the absence of some attractive and profitable labor, would otherwise spend their time in slothful inactivity, should be alike the pride as well as pleasure of our legislators.

The example of several of our sister States in encouraging, by a State bounty, the growth of the mulberry and production of silk, has been attended with the most beneficial results. Lands here-

tofore worthless have been planted with the mulberry, and tracts of exhausted, as well as naturally sterile soils, are now becoming productive in bearing their annual harvests to the silk worm. It is a tree wisely ordered by nature to thrive in a barren region, and is often found most flourishing where more favored plants obtain but a feeble existence. Your committee do not indeed entertain a doubt, but that even the miserable lands which stretch for miles to the north and west of this goodly city of Albany, were the production of silk properly encouraged, might, in a few years, instead of yielding a gloomy and stunted growth of pines, become of immense value for the growth of the mulberry; and that their now tenantless plains would be sprinkled with cottages, and inhabited, by an industrious population, engaged in the production of that valuable article. Its growth and manufacture would employ those chiefly at an age little fitted for the more laborious pursuits of the farm, and would fill up a void in the productive labors of the family, by giving employment to the aged, the infirm and the child, from whose labors little profit is now realized.

Aware, as your committee fully are, of the vast resources of our State of New-York, and much as it behooves her to lead in the front rank of industry and wealth among her sister States, yet they cannot conceal the truth that, for many years past, this proud State has lagged far behind in the laudable policy of encouraging, by State bounty, the production of new and important branches of either agriculture or manufactures.

Presuming, therefore, that the laudable object of your petitioners from the county of Warren will meet with a hearty co-operation in your House of Assembly, by granting the object of their prayer, your committee beg leave to introduce a bill.

REPORT

Of the committee on agriculture, on the memorial of the State agricultural convention assembled in Albany on the first day of February, instant.

Although the duties of the committee on agriculture have oftentimes been considered rather nominal than active, yet your committee, on a review of past years, and a careful examination of the present condition of the State, have come to the conclusion that a serious responsibility, at this time, rests upon them; that they are charged with some of the highest duties which devolve upon the Legislature of a State; the guardianship of that primary branch of industry which is the source of our prosperity and greatness, and our sure dependence in times of public peril and misfortune. Politicians may speculate upon the influence which free institutions, or a partizan administration, may have upon the prosperity of a country; commercial men may extol the advantages of an extended foreign commerce; manufacturers may claim pre-eminence in conferring independence upon their country; and literature may arrogate the exclusive credit of rendering a community enlightened and polished; yet, after all, agriculture constitutes the broad base upon which the whole superstructure of society depends for support. If that languishes, either for want of the protection and patronage of the constituted

authorities, or from the inattention and lack of intelligence in its rural population, the government becomes embarrassed, commerce crippled, and manufactures paralyzed. A maritime war may sweep our commerce from the ocean; our manufactures may sink for want of a market for their fabrics, as they have done; but agriculture never disappoints our hopes, while we continue to enjoy the blessings of a kind Providence, whose favor it is alike our duty and our interest to propitiate, by prudent foresight and dutiful submission to all his requirements. The soil, under judicious management, never withholds the tributes of reward to those who humbly devote themselves to its culture, and place upon it their only sure reliance. Upon this, then, we ought to bestow our special attention, our protecting care. These truths have been amply illustrated and established in the experience of the two last years. Your committee are persuaded that the condition of the agriculture of any country affords a safe criterion whereby to judge, not only of its general prosperity, but of the social and moral condition of its population.

The recollections of the age will serve to show, that the relative condition of our agriculture and that of many of the countries of Europe has undergone a remarkable change within the last forty years. While the latter has been increasing, ours has been diminishing in its products. About the commencement of the present century the exportation of bread stuffs and other provisions, from the northern and middle States, amounted annually, to twelve or fourteen millions of dollars, principally to the continent of Europe. In the two last years, instead of exporting provisions to Europe, as formerly, we have imported from thence bread stuffs to the amount of seven or eight millions of dollars. These facts conclusively show, that the agricultural products of Europe have greatly increased, while ours have been diminishing, in proportion to our population, notwithstanding the vast accession of fertile virgin soil which has been constantly enlarging our borders. Whence this great change but from a neglect, on our part, to nurture this great branch of national industry; and a diligent and constant endeavor, on the part of the government and people of Europe, to improve it? We have the most ample evidence that the efforts of our cotemporaries on the old continent have been crowned with abundant success. France and Germany have made great advances in agricultural improvement. The once barren sands of Brandenburg, and the no less unproductive heaths of Prussia, are now covered, through the active efforts of the Prussian government, with plentiful harvests of the finest grain in the world. The soil of England has been made to more than double its products within the last sixty years; and Scotland has quadrupled her agricultural products since the termination of our revolutionary war.

While such has been the recent progress of agricultural improvement in Europe, what has been our progress in husbandry? Has it not been retrograde? Have not our cultivated lands been generally deteriorating, under an exhausting system of husbandry? and have not large tracts, once fertile, on the Atlantic border of our country, been absolutely abandoned, as unprofitable for

culture, on account of the sterility produced by our bad husbandry?

Upon the view of the subject which these facts present, the committee feel it their duty to press upon the consideration of the Legislature, who are delegated to take care of the public weal, an investigation into the causes which have led to this great, this alarming change, in the relative condition of the two continents; and to urge them to adopt prompt and efficient means, not to repress the European spirit, which has done so much good to the human family, but to transfuse a portion of that spirit into our own population, and to raise the character of our agriculture, as we can and ought to do, to the level of that of any country on the globe. Fortunately, we are not left in doubt as to the prominent means of effecting this desirable object. Other governments have made the experiment for us; have set us the example, and in a measure demonstrated the certainty of success. Those governments have patronized and aided this noble art, by protection and rewards; by instruction, in the primary schools, in the elementary principles of husbandry; by national boards of agriculture; by agricultural surveys, and by schools of scientific and practical institution in the diseases and management of domestic animals, and in the business of agriculture generally.

The State of Massachusetts was among the first to encourage the establishment of agricultural societies, and to dispense to them the public bounty. Her continuing to persevere in this policy to the present time, by a renewal of the law making an annual and liberal appropriation to this object, is at once an evidence that she has found such expenditure salutary, and in perfect unison with the feelings and wishes of her enlightened population.

The State of Maine has also given an example of great liberality and wisdom, in recent efforts to improve her agriculture. The bounty which she this year pays to her citizens, to encourage the culture of wheat alone, will draw from the treasury a greater sum, than all the expenditures, which the "empire State" has made *directly* in aid of her agriculture, put together.

Several of the States have likewise, with a view to encourage a useful and lucrative branch of home industry, offered liberal bounties for the cultivation of the mulberry, and the production of silk. A slight reference to the proceedings of the current Legislatures of several of our sister States, at this moment, may show the position which our own proud State should assume on this important subject.

A bill is now before the Legislature of Massachusetts for giving a bounty to her citizens for the production of wheat.

A bill is in discussion in the Legislature of Kentucky to establish a board of agriculture, and State and county societies.

A bill is before the Legislature of Maryland to establish and patronize agricultural schools, &c.

The same is under consideration in the young and enterprising State of Michigan, for the establishment of State and county agricultural societies, with appropriations from the State funds for their support.

And even Wisconsin, that wild, though fertile and rapidly increasing territory of the great west, is engaged in the same laudable work.

Nor do we lack a useful lesson of instruction at home. The law passed in 1819, "to improve the agriculture of this State," did do what its title purported; it did improve the agriculture of this State. It improved our farm stock, our farm implements, our farm crops, and modes of culture; and it gave a new impulse to useful enterprise and improvement. And although the manner of its execution was in many cases faulty, as all new experiments are liable to be in the outset; yet it effected a great public good. That law involved a public expenditure of twenty-five or thirty thousand dollars, and no like sum, your committee are induced to believe, has been expended from the State treasury with greater public advantage. Its benefits are now palpable, and are acknowledged by all intelligent men. Indeed, it has been stated, upon no slight grounds, that the expenditure has been more than thrice returned to the treasury, in the form of canal tolls upon the extra products of the soil, which it virtually created.

There is another subject to which the committee deem it proper to call the attention of the Legislature. The insect denominated the grain worm, has, for several years, been greatly destructive to the wheat crop in the northern and north-eastern counties of the State. It is progressing south and west, and threatens to cut off, or at least seriously to diminish, the great staple of our soil, and the source of much of our wealth. If the attention of naturalists, and the critical observation of practical farmers, were directed to the character and habits of this insect, by offers of a liberal bounty for the discovery of an efficient preventive of its depredations, it is believed that great public benefit might result from the measure, while it seems certain that no injury could ensue from it.

Your committee believe that in all the arts of productive labor, and particularly in agriculture, it is highly important, to the attainment of excellence, to commence instruction in the primary schools. And as we now have published, in our State, agricultural journals of as high and useful character as are published in the world, and at a price less than one-fourth the cost of an equal quantity of matter in a book form, they consider their introduction into our common schools as occasional class books for our youth, a cheap and efficient means of improving both the mind and the soul.

From the best consideration which the committee have been able to give to the important matters which come within the purview of their duties, they have come to the unanimous conclusion, that the time has arrived, when the public interest, and the popular will alike require the exercise of legislative wisdom, and legislative bounty, to improve the condition of our agriculture; the business, as has been already remarked, which gives employment to the mass of our population, and which is the main source of prosperity to all the other classes of society. The committee, therefore, recommend that, with a view of promoting the desired improvement, a law be enacted to organize a State board of agriculture, and to establish agricultural societies in the several counties of this State; and that an annual expenditure of 25,000 dollars be authorized, for five years, with suitable provisions and under proper restrictions, to improve the agriculture of this

State. The committee have prepared a bill in accordance with their views upon this subject and have directed their chairman to ask leave to present the same.

An Act to improve the Agriculture of this State.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows:

1. That the sum of twenty thousand dollars per annum shall be, and hereby is appropriated, for the term of five years, for the promotion of agriculture and household manufactures, in the several counties of the state, in the manner following, to wit: To the county of Albany, five hundred and twenty-one dollars; to the county of Allegany, three hundred forty-eight dollars; to the county of Broome, one hundred and seventy-four dollars; to the county of Cattaraugus, three hundred and forty-eight dollars; to the county of Cayuga, five hundred and twenty-one dollars; to the county of Chautauque, five hundred and twenty-one dollars; to the county of Chemung, one hundred and seventy-four dollars; to the county of Chenango, five hundred and twenty-one dollars; to the county of Clinton, one hundred and seventy-four dollars; to the county of Cortland, three hundred and forty-eight dollars; to the county of Delaware, three hundred and forty-eight dollars; to the county of Dutchess, five hundred and twenty-one dollars; to the county of Erie, five hundred and twenty-one dollars; to the county of Essex, one hundred and seventy-four dollars; to the county of Franklin, one hundred and seventy-four dollars; to the county of Genesee, six hundred and ninety-five dollars; to the county of Greene, three hundred and forty-eight dollars; to the county of Herkimer, three hundred and forty-eight dollars; to the county of Jefferson, five hundred and twenty-one dollars; to the county of Kings, three hundred and forty-eight dollars; to the county of Lewis, one hundred and seventy-four dollars; to the county of Livingston, three hundred and forty-eight dollars; to the county of Madison, five hundred and twenty-one dollars; to the county of Monroe, five hundred and twenty-one dollars; to the county of Montgomery, five hundred and twenty-one dollars; to the county of Niagara, three hundred and forty-eight dollars; to the county of Oneida, six hundred and ninety-five dollars; to the county of Onondaga, six hundred and ninety-five dollars; to the county of Ontario, five hundred and twenty-one dollars; to the county of Orange, five hundred and twenty-one dollars; to the county of Orleans, one hundred and twenty-four dollars; to the county of Oswego, three hundred and forty-eight dollars; to the county of Otsego, five hundred and twenty-one dollars; to the county of Putnam, one hundred and twenty-four dollars; to the county of Queens, one hundred and seventy-four dollars; to the county of Rensselaer, five hundred and twenty-one dollars; to the county of Richmond, one hundred and seventy-four dollars; to the county of Rockland, one hundred and seventy-four dollars; to the county of St. Lawrence, three hundred and forty-eight dollars; to the county of Saratoga, three hundred and forty-eight dollars; to the county of Schenectady, one hundred and seventy-four dollars; to the county of Schoharie, three hundred and forty-

eight dollars; to the county of Seneca, one hundred and seventy-four dollars; to the county of Steuben, five hundred and twenty-one dollars; to the county of Suffolk, three hundred and forty-eight dollars; to the county of Sullivan, one hundred and seventy-four dollars; to the county of Tioga, one hundred and seventy-four dollars; to the county of Tompkins, three hundred and forty-eight dollars; to the county of Ulster, three hundred and fifty dollars; to the county of Warren, one hundred and seventy-five dollars; to the county of Washington, three hundred and fifty dollars; to the county of Wayne, three hundred and fifty dollars; to the county of Westchester, three hundred and fifty dollars; to the county of Yates, one hundred and seventy-four dollars.

2. That when an agricultural society shall be formed in any county, or in two contiguous counties, and the members thereof shall annually procure, or raise by voluntary subscription, any sum of money, the president and treasurer shall make and subscribe an affidavit of the facts of the formation of such society, and of their having raised a certain sum, specifying the amount thereof, which affidavit shall be filed with the comptroller of this state, who shall draw his warrant on the treasurer for a sum equal to double the amount of such voluntary subscription, not, however exceeding the amount to which such county or counties would be entitled, according to the apportionment aforesaid.

3. That the several agricultural societies which shall be formed in this state, during the continuance of this act, shall annually elect such and so many officers as they shall deem proper, all of whom shall be actually engaged in carrying on the business of farming; none of whom, however, shall receive any emolument from his office; and it shall be the duty of such officers annually to regulate and award premiums on such articles, productions and improvements, as they may deem best calculated to promote the agricultural and household manufacturing interests of this state; having especial reference to the nett profits which accrue, or are likely to accrue, from the mode of raising the crop or stock, or the fabrication of the article thus offered, with the intention that the reward shall be given for the most economical or profitable mode of competition: Provided always, that no individual shall receive more than two premiums at any anniversary meeting, nor more than one first and one second premium at any subsequent time upon the same animal, and that no person shall receive any premium from an awarding committee of which he is a member thereof: And provided further, that before any premium shall be delivered, the person claiming the same, or to whom the same may be awarded, shall deliver in writing to the president of the society, as accurate a description of the process in preparing the soil, including the quantity and quality of manure applied, and in raising the crop, or feeding the animal, as may be; and also of the expense and product of the crop, or of increase in value of the animal, with the view of showing accurately the profit of cultivating the crop, or of feeding or fattening the animal.

4. That if an agricultural society shall not be organized, in any county, or shall neglect to raise by voluntary subscription, a sum which shall entitle them to the apportionment made to said coun-

ty by this act, the board of supervisors of said county are hereby empowered, at their pleasure, during the continuance of this act, to raise annually, in the manner the contingent charges of said county are required to be raised, a sum equal to one half the amount hereby appropriated to said county. And whenever the president of said board of supervisors shall certify to the comptroller that such board of supervisors have resolved to raise such sum, it shall be the duty of the comptroller to draw his warrant on the treasurer of the state, in favor of the treasurer of such county, for the sum appropriated for said county by the first section of this act.

5. That it shall be the duty of the supervisors of every such county, to cause all the money so raised and received for agricultural improvement, to be paid and expended at an annual agricultural exhibition, to be held in such county, at such time as they shall appoint, in such manner as shall in their judgment best promote the legitimate object of this act, and subject to all the provisions contained in the third section hereof.

6. That the several presidents of the said societies, and of the boards of supervisors, who shall receive or expend any of the moneys hereby appropriated, shall annually, in the month of December, transmit all such reports or returns as they are required to demand and receive, to the secretary of the state board of agriculture, hereafter named and organized, together with an abstract of their proceedings, exhibiting a detailed account of the expenditure of all the moneys which shall come into their hands under this act, and stating to whom and for what purpose paid, with the vouchers therefor.

7. There shall be organized a state board of agriculture to consist of five members, who shall hold their offices for five years from the second Tuesday of February, one thousand eight hundred and thirty-eight, and shall receive, while necessarily employed in the duties enjoined by this act, the same compensation as members of the legislature. They may choose such officers as they may deem necessary, and shall hold quarterly meetings in the city of Albany on the first Tuesday in February, May, August and November; and may also meet at such other times as may be found expedient to fulfil the duties hereafter enjoined upon them.

8. There shall be assigned for the meetings of the state board of agriculture, and as a museum for models, geological specimens, and agricultural productions, a suitable apartment in the state buildings now erecting; which room and museum shall be kept in order by the secretary, or by some person to be appointed by the board, and shall at all reasonable hours be open and accessible to the public without charge.

9. It shall be the duty of the state board of agriculture to examine all reports and returns made by the presidents of the county agricultural societies, and boards of agriculture; to select, for publication, such of them, and such other essays as they may judge advisable; and shall annually publish a volume, to be distributed in the several counties of this state, by the county agricultural societies, or by the boards of supervisors thereof. And they shall examine, when in session, and determine by practical experiment on the merits of all new farm implements or machinery offered for

their examination, and may award discretionary premiums upon such as may be found truly meritorious and deserving of public patronage, provided the whole amount expended in any one year shall not exceed the sum of one thousand dollars for that purpose; and provided further, that no such premium shall be delivered to the person claiming the same, until he has deposited with the board a model of his implement, machine or improvement.

10. There shall be deposited in the room assigned to the board, a complete set of mineralogical and geological specimens, properly arranged and labelled, from the collections now being made by the geological corps in the public employ; specimens of choice or rare agricultural productions, models of implements, drawings of choice animals, books, and other articles which may be presented to the museum, a registry of all which shall be made by the secretary, and open to the public inspection.

11. The said state board of agriculture shall report annually to the legislature, in the month of January, a statement of their expenditures and of their proceedings during the previous year; and also all matters that they may deem calculated to promote the improvement of agriculture and of household industry.

12. A reward of five hundred dollars shall be and is hereby offered to any person who shall discover and will communicate to the state board of agriculture, for the public benefit, a sure and efficient preventive of the depredations of the insect denominated the Grain Worm; the efficacy of the said preventive to be tested by the said board during at least one year, and satisfactorily confirmed before the said award shall be given; and if the discovery shall prove but a partial remedy of the evil, it is made discretionary with the said board, or a majority of them, to award such part of the sum hereby appropriated as its importance may seem to justify.

13. That the treasurer of the state shall annually pay on the warrant of the comptroller to the said state board of agriculture, the sum of five thousand dollars, to enable them to pay the aforesaid premium; to purchase and distribute such useful seed as they may deem proper; to publish an annual volume, and to defray such other necessary expenses to promote the object of this act, as are not otherwise provided for; and the said board shall annually account with the comptroller for the expenditure of their money.

14. That the presidents of the several county societies, or delegates to be chosen by them annually for the purpose, shall be ex-officio members of the New York State Agricultural Society.

15. The board of agriculture, constituted as aforesaid, shall have the authority in their discretion, to award premiums for the production of extraordinary and valuable crops of grain; beet root, and sugar manufactured from the same; mulberry orchards, and silk manufactured therefrom; or any agricultural or horticultural productions or household manufactures, which in their view shall by such encouragement add to the productive wealth of the country, not exceeding, however, in amount the sum of \$5,000 hereby placed in their hands.

16. The collectors of taxes in the several towns in the State of New-York are hereby required, while collecting the same, to ascertain, as

near as may be in their power, the number of bushels of grain of different kinds, of esculent roots, and of hay produced during the current year in their respective towns, and the number of horses, cattle, sheep and swine then in existence, and report such amount to the board of agriculture in the city of Albany, on or before the first day of January in each and every year hereafter. Such report to be directed to "The State Board of Agriculture, Albany."

17. The sum of \$25,000 appropriated by this act shall be taken from the income of the surplus fund deposited with the State of New-York by the United States.

18. The first board of agriculture shall consist of who are hereby appointed for the term of five years aforesaid, and all vacancies that may occur in said board shall be filled by joint ballot of both houses of the legislature at their annual session, to be held by the incumbents for the same period of time.

18. The State board of agriculture shall procure of the agricultural periodicals entitled "The Cultivator," and "The Monthly Genesee Farmer," as many copies of each, commencing with the current volumes, as there are common school districts in the state, and shall cause as many copies of each to be addressed to the school commissioners of each town as there shall be school districts in the same; and it shall be the duty of such school commissioners to cause the said papers to be promptly distributed, one copy of each to the several schools, and of the trustees of said school districts to have the same properly taken care of, and to be used as occasional class books in said schools.

20. The comptroller shall, on the requisition of the said board of agriculture, draw his warrant on the treasury of the state for the payment to each of the proprietors of the said agricultural papers for the number of copies so delivered, estimating each of them at 50 cents per copy; such payment to be made from the common school fund.

FARMERS' REPOSITORY OF AGRICULTURAL IMPLEMENTS AND EAST- MAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobaccoists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as usual. Elliott's Horizontal Wheat Fans, and Fox & Bolland's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On

hand, a few Patent Lime Spreaders, Horse Powers, &c. &c. Also just received, a fresh supply of Le Breth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,
Pratt street, Baltimore,
Between Charles & Hanover sts

Feb 20

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,.... do.....	"	11	—
Middlings,.... do.....	"	11	—
Assorted, country,.....	"	10	—
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"	—	—
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	—
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	—
FISH, Shad, No. 1, Susquehanna, batrel.		6 75	—
No. 2,.....	"	6 50	—
Herrings, salted, No. 1,.....	"	3 00	—
Mackerel, No. 1, ————No. 2	"	8 75	11 00
No. 3,.....	"	5 75	—
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	Farmers Bank of Virgi. 1½a½
Branch at Baltimore,....do	Bank of Virginia,..... do
Other Branches,.....do	Branch at Fredericksburg. 1½
MARYLAND.	Petersburg,..... 1½a½
Banks in Baltimore,....par	Norfolk,..... 1½a½
Hagerstown,....do	Winchester,..... 1
Frederick,.....do	Lynchburg,..... 1½a½
Westminster,.....do	Danville,..... do
Farmers' Bank of Mary'd, do	Bank of the Valley,.... 1
Do. payable at Easton,....do	Branch at Romney,.... 1
Salisbury,.... 1 per ct. dis.	Do. Charlestown,.... 1
Cumberland,..... par	Do. Leesburg,.... 1½a½
Millington,.....do	Wheeling Banks,.... 3a½
DISTRICT.	Ohio Banks, generally 6a7
Washington, } Banks, ½p.c.	New Jersey Banks gen. 5
Georgetown, } Banks, ½p.c.	New York City,..... par
Alexandria, } Banks, ½p.c.	New York State,..... 3a4
PENNSYLVANIA.	Massachusetts,..... 3a3½
Philadelphia,.....par	Connecticut,..... 3a3½
Chambersburg,.....do	New Hampshire,.... 3a3½
Gettysburg,.....do	Maine,..... 3a3½
Pittsburg,..... 3½	Rhode Island,.... 3a3½
York,.....do	North Carolina,.... 5
Other Pennsylvania Bks. 2	South Carolina,.... 6a7
Delaware [under \$5].... 4	Georgia,..... do
Do. [over \$5]..... 1½	New Orleans,..... 12
Michigan Banks,.....10	
Canadian do.....10	

CONTENTS OF THIS NUMBER.

Hint to the members of the legislature to form an agricultural society—hint to subscribers—Eastern seed potatoes wanted—hint to Mr. Jefferson Shields—notice of reports in the N. York legislature on the encouragement to agriculture—formation of agricultural societies—work for March—value of coal ashes—improvement in tanning—commerce of Boston—analyses of the nutritive matter of vegetables—the benefactors of agriculture—report in the New York legislature on the encouragement of silk—report and bill in do. for the encouragement of agriculture—prices current, advertisements.

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	—
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel.	70	72
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"	—	—
Upland,.....	"	10	12½
Louisiana——Alabama	"	—	—
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 25	dull.
FLOUR&MEAL—Best wh. wh't fam.	barrel.	10 00	11 00
Do. do. baker's.....	"	—	—
SuperHow. st. from stores	"	7 87	8 25
" wagon price,	"	7 50	7 75
City Mills, super.....	"	8 00	8 25
" extra	"	8 25	8 50
Susquehanna,.....	"	—	—
Rye,.....	"	6 50	—
Kiln-dried Meal, in hhds.	hhd.	20 50	—
do. in bbls.	bbl.	4 12	—
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 25
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	—	3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	—	7 50
Slaughtered,.....	"	6 25	7 00
Hops—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LINE,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	—
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	5 50	—
Ground,.....	barrel.	1 50	scarce
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"	—	none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrapery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,....	"	8 00	10 00
" good yellow,....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 70	1 80
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	33	—
" in hhds.....	"	34	—
" wagon price,.....	bbls	30	30
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 50	—
To Wheeling,.....	"	1 75	—
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18
Three fourths Merino,.....	"	30	35 18
One half do.....	"	25	30 18
Common & one fourth Meri.	"	25	30 18
Pulled,.....	"	28	30 18

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms

EDWARD P. ROBERTS.

NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street, near Pratt, three doors in the rear of Dinsmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT; BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; BUCKWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS, WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by John T. Durdin & Co. at their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinsmore & Kyle's. N. B. Fruit and Ornamental Trees furnished to order by giving timely notice—double Dahlia and other bulbous roots, together with flower Seed of superior kinds, furnished to order.

Feb 13

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old North Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr dam, (Layd Sarah) by Pilot; gr gr dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, for pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Soroor, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish.

Feb. 13.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 46.

BALTIMORE, MD. MARCH 13, 1838.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. W. corner of
Baltimore and North streets, over the Patriot office, at two
DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

BALTIMORE: TUESDAY, MARCH 13, 1838.

We have been politely favored by the Chairman of the Committee on Agriculture of the House of Delegates of Maryland, with copies of a report and bill made to that body on the 15th ult., for the encouragement of the growth of the *morus multicaulis* and the *silk culture*. The report sets forth in just and appropriate terms, the vital importance of the culture to the people of Maryland, while the bill provides *liberal bounties* to invite our agriculturists to engage in the good work. To the public spirited chairman of the committee, and his patriotic co-laborers of the committee, we return our heartfelt thanks, personally, and we think we may bespeak for him and them, the meed of gratitude of every Marylander, who feels, as he should feel, alive to the prosperity of the State; for we are sure there is no other branch of human industry so well calculated to mend up the broken fortunes of our people, or to give appreciation to those countless fields of worn out lands every where to be found within our limits. Should the bill pass into a law, we shall look forward, with pleasurable emotions of State pride, to no distant period, when old Maryland will present to her sisters, an aspect worthy of her best days.

The report and bill will be found in another part of this day's impression.

SILK CULTURE IN MARYLAND.

We stated in an article a few numbers back, that four silk companies had been organized on the eastern shore of this State, and we are happy to learn by the last *Freedom's Sentinel*, published at Centreville, on that shore, that there are seven companies instead of four. The editor enumerates them thus:—1 in Kent county; 2 in Queen Anne's; 2 in Caroline; 1 in Talbot, and 1 in Somerset, and adds, that "besides these companies, there are a number of private individuals who are engaged in the mulberry and silk culture, who

are prosecuting it with the happiest results, and which promises to reward them with an abundant harvest."

We are truly gratified to find this generous spirit of enterprise, industry, and intelligence, so actively abroad among our peninsula brethren, believing it will lead to results that must immeasurably add to their population, wealth, comfort and consequent happiness.

SOAKING CORN TO FEED HORSES.

A gentleman, who resides in Baltimore county, and who is one of the most successful farmers in our vicinity, informed us a few days since, that he saved at least one-third of his corn by the manner in which he fed it out to his horses. His plan is this: He has two hogsheds placed in his cellar, where they are secure from freezing.—These he first fills with corn in the ear, then pours in a sufficient quantity of water to cover the corn. After the ears have been thoroughly soaked he commences feeding, giving to his horses but *two-thirds* the usual quantity allowed. As one of these hogsheds becomes empty, he refills it; and by the time the other is empty the one last filled is sufficiently soaked for use. In this way, the *cobs* become so softened that the horses consume the whole of them, and they are thus made to add fully one-third more to his stock of feed. He assured us, that his horses eat the cobs with avidity, keep in good order, and are just as competent to perform plantation labor as when they consumed the grain alone. The success of our informant should stimulate his agricultural brethren to follow his example, as the labour of preparation is nothing, compared with the great saving effected.

WEIGHT OF BEEVES.

We have before alluded to the fact of there being an application before the Legislature of this State for the appointment of a weigh master to ascertain the weight of live stock brought to this market for sale, and spoke of our decided approbation of the proposed measure. For our life we cannot conceive how any rational objection can be entertained towards the passage of the bill. Common justice demands that in disposing of beef

cattle, that equal justice should be done to buyer and seller. The contemplated change contemplates this and no more; and how preferable the plan of arriving at this by *actual weighing* over that of guessing, as is sometimes practised, can easily be imagined. By the operation under the new system the Drover has nothing to do but to place his bullock in the scales, and there with the greatest nicety his gross weight can be ascertained—and how easy a matter is it then to deduct the *tare*. We trust the bill will find favor, as it is the only practicable way of dispensing impartial justice to all concerned. The fact is, too much looseness has prevailed in the transactions of buyers and sellers, and it is time that the proper authorities should place a guard around the interests of all. Had each of our counties organized agricultural societies long ago, as they ought to have done, many evils which now exist to the prejudice of farmers would not now exist, and we trust that they will see the necessity of forming such associations without further delay.

RICHMOND AND ITS PROSPECTS.

We conversed a few days since with an intelligent eastern gentleman, who had just returned on his way homeward, from *Richmond, Va.*, where he had spent a few weeks, and were gratified to hear him speak in the strongest terms of the prospects of that place. He dwelt with peculiar force upon her natural advantages, her water power and mineral resources; observed that from the spirit in favor of internal improvements which pervaded the public men of the state, that she would become one of the most decidedly business cities in the Union. "Do not mistake me," he remarked, "when I speak of the mineral resources of Virginia, I have not the most distant allusion to her gold mines; they may, or may not be valuable; my opinion is, that they will never prove a source of great profit; but of her inexhaustible beds of iron ore, coal, lime, and stone, they must inevitably prove so many sources of certain wealth, and whenever Virginia shall have completed her western improvements, and opened those great treasures to the trade of her capital, mark my words, Richmond will grow with a rapidity that will astonish even those that have witnessed the giant strides with which some of

our Atlantic cities have attained their present magnitude—there is a *trade* within the reach of the improvements in contemplation that will make her among the first commercial cities of the Union.”

We sincerely hope that the emphatic words above, may, to the very letter, prove to be words of prophecy.

LARGE CROPS OF ROOTS.

We extract the following instances of the growing of large crops of roots from the Genesee Farmer, in order that the results may serve to stimulate our agricultural brethren the present season to make experiments.

L. Beach, of Marcellus, New York, in 1835 raised at the rate of 2,300 bushels of carrots to the acre.

Edward Miller, of Albany county, N. Y., the same year raised 1,680 bushels.

Edward Miller, of Albany county, New York, raised at the rate of 1,220 bushels of Ruta-baga to the acre.

R. Gordon, it is stated in the Cincinnati Farmer and Mechanic, raised 1,510 bushels of Ruta-baga to the acre.

Wm. Wetmer, of Stow, Ohio, raised one year at the rate of 1,952 bushels to the acre, and another year, 1,443 bushels.

The instances in which 1,000 bushels to the acre of Ruta-baga, Mangel Wurtzel, and Sugar-beet, have been raised are so numerous as to establish that quantity as the point of production easy of attainment, and the farmer, or planter, will easily be able to draw his own conclusion as to the great sum of benefit to be derived from his engaging in the root culture.

If we are asked how can such large yields be realized, we answer, it is only necessary to manure heavily and cultivate cleanly. As to the *best soils* for the production of roots, we would observe, that deep loams and sands are preferable. On such soils in good heart, from 20 to 30 double horse cart loads of manure, with good culture will be sufficient. All ground intended for such culture should be ploughed deep at least twice, and harrowed until thoroughly pulverised, and kept clean until the respective crops be laid by. As a general remark, we would say, that three workings would be sufficient.

Milk Sickness.—The legislature of Kentucky have passed a law offering a premium of \$2,000 to any person who shall discover the cause of this afflictive and fatal disease.

Hessian Fly.—We would respectfully suggest whether it would not be well for our Legislature indeed, for the Legislatures of each of the Wheat

growing states, to offer a premium for the discovery of a preventive remedy for this destructive insect.

The *Silk Culture* in New Jersey is gaining on the affections of the people. In the neighbourhood of Burlington, there are several thriving establishments of considerable extent; the one under the Messrs. Cheney, who have built a cocoonery is peculiarly so. At Freehold and other places in Monmouth county, as well as in Warren county, the business is about to be prosecuted with energy. At *Freehold* there is a cocoonery now being erected, and the *Morus Multicaulis* is extensively cultivated.

The Unit at last.—The bill granting bounties for the encouragement of the growth of wheat in the state of Massachusetts, has passed the House of Representatives of that State by an *unanimous* vote. This law prospectively appropriates at least a hundred thousand dollars for the promotion of this object, and will, we have no doubt, save to the people about *seven* or *eight* millions of dollars, annually, that being the amount hitherto expended out of the State in the purchase of bread-stuffs.

A Singular Fact.—It is stated in an address to his constituents from *Shelby Coffey*, Esq. a representative in the legislature of Kentucky, that out of 114 convicts confined in the Penitentiary of that State, 51 are from the county of Jefferson alone.

Michigan.—This State last year produced nearly 1,500,000 bushels of wheat, 1,400,000 bushels of oats, and 1,000,000 bushels of corn.

We translate, with feelings of pleasure, to our columns, from the *Marlborough Gazette*, the following account of the importation of the *first* Durham Cattle into Maryland, if not into the United States. The successful career, and high appreciation, which, by almost universal consent, has been subsequently given to this generous breed of cattle, in our estimation, reflects equal credit upon the patriotism and sagacity of their importer; nor is less due to our late fellow townsman, *Robert Oliver*, Esq., for his agency in furnishing the means. A general of skill and courage may achieve a *victory* pregnant alike with fame for himself, and glory for his country, and that victory may weave around his brow a wreath of imperishable renown—its splendor may win for him the

gratitude of his countrymen. But still, there is a draw-back: *Philanthropy*, in casting its eye over fields in which those brilliant deeds were done, drops a tear over the evidences of misery and suffering every where to be seen—*here* is the mangled corpse of some gallant spirit, and *there* the life blood of a father or a son who have fallen, and whose sacrifice forms a part of the price of military glory. Not so with the private citizen who devotes his talents and his means to the improvement of the soil, or to that of breeds of domestic animals. His motives are equally patriotic; his object more ennobling; for while he seeks to effectuate a great national blessing—while he strives to meliorate the condition of his kind, by adding to the sources of human support, the circumstance that his pathway is unstained with blood; that in conferring benefits he rends no widowed heart—he fills no parental home with sorrow, nor desolates the peaceful fireside, impart a value to his acts immeasurably beyond the fame of the soldier.

Such being our feelings and views, we say we look back upon this act of Mr. Skinner, with emotions of gratitude, and we think were we him, we should desire no prouder title to the respect of our countrymen than he can claim—of being the *first* to introduce the noble Durham into his native State, and the *first* to establish in America a paper exclusively devoted to the cause of agriculture. As the founder of the *American Farmer*, it was reserved for him to give a new impulse to husbandry; to infuse into the minds of agriculturists a desire for improvement, which has grown with every succeeding year, and will continue to grow, until an aspect of fruitfulness will cover our lofty hills and delightful valleys. Though he some years since retired from his editorial labors, the course of the good work, whose broad foundation he so well laid, is still onward; and we sincerely hope, like that great benefactor of Britain, Sir John Sinclair, he may live to witness the product of the soil quadrupled, and to enjoy the inward gratification arising from the reflection of having largely contributed to produce the result.

IMPROVED SHORT-HORN CATTLE.

The first improved Short-Horn Cattle, imported into Maryland—if not in the United States.

HISTORY.

It was in 1822 by J. S. Skinner of Baltimore, then editor of the *American Farmer*, the credit and means being furnished at Liverpool, by the late liberal and public spirited Robert Oliver.

The importer was induced to make the importation from what he had read of their superior qualities in English agricultural and other jour-

nals; and under the persuasion that they would be a great acquisition especially in the fertile regions of the West, where their abundant crops of grass and corn, must be most profitably converted into beef by means of a race of cattle affording in shorter time, a greater weight of beef, of better quality than any other breed.

In this his anticipations have been fully realised, for after 15 years experience and numerous and large importations by individuals and companies formed for the purpose, these cattle maintain both their high character and high prices.

The cattle *Champion, White Rose and Shepherdess*, were sold by Mr. S. to that judicious and eminent agriculturist, the late Gov. Lloyd, who was incredulous of any great superiority in English over American cattle, until he saw these, when he immediately offered \$1500 for the three, which was accepted, Mr. Oliver himself having offered to take them at the same price if necessary. Mr. S. had himself no use for them, his object being solely to benefit the agricultural interest by their introduction. The Agricultural Society, on a view of the cattle, at once voted to the importer premiums consisting of a silver pitcher, with an engraving of the bull *Champion* in front—and two Waiters, one for each Heifer, with appropriate mounting and engravings.

It may be curious and perhaps useful to add the "bill of particulars."

LIVERPOOL, 8th April, 1822.

Mr. SKINNER,	To W. & T. Brown & Co.
To Charles Champion for cost,	1,189
" J. Githerow for expenses at the Old Swan,	2 9 4
" Durds & Carter for Linseed Cake,	4 12 6
" J. Gilding for bran,	12 10
" Sarah Ryder for turnips,	14
" S. Lightfoot for water puncheons,	4 5 6
" Dormunday for births,	4 0 9
" T. Temperley's bill at the Swan,	2 0 4
" R. Duncan for potatoes,	1 12 0
" J. Bruck for 173½ stone packed hay,	8 13 6
" Passage and provision for Jno. Temperly, per Newburyport,	12 12 0
" Straw, &c.	1 12
" Entering at Custom House	11 9
" Commission 5 per cent.	11 12 10
" Freight,	47 5

1,291 14 4

Add to the above, insurance paid on \$1000 at 5 per cent. and difference of Exchange \$130 70.

A bull and two heifers were soon after ordered from Mr. Champion for Gen. Van Rensselaer, of Albany. The Cultivator can tell what is the estimation in which they are held.

The Port Gibson correspondent says:—It is computed that the cotton crops in Mississippi will turn out 15,000 bales more than that of last year. It will be worth at the present prices, say 333,000 bales, \$16,500,000.

The judicious farmer will seize every opportunity to get his manure out on his corn ground.

BOUNTY TO SILK AND MULBERRIES.
Report of the Committee on Agriculture, in the House of Delegates of Maryland, upon the Growth and the Manufacture of Silk.

The committee on Agriculture, to whom was referred the petition of sundry citizens of Queen Anne's county, praying aid from the State in behalf of the Silk culture, have had the same under consideration, and beg leave respectfully to Report:

That the measure commended to the adoption of the Legislature by the petitioners, is one of deep moment, involving in its consequences, the introduction of and success of the silk culture, and the immense benefits to be derived from that source of profitable employment. Your committee have witnessed the failure of agricultural industry, to realize adequate returns, the growing barriers to enterprise, incident to a soil deprived of much of its fertility by exhausting crops, and the consequent emigration of many of our most active and useful citizens to the South and West, for the last few years, with feelings of deep concern, and they regard the inquiry which seeks a remedy for those evils, as one of pervading importance, worthy the profound attention both of the patriot and statesman.

In view of the decided advantages of the silk culture over most other branches of husbandry, the success with which it has been introduced and carried on in the Eastern and Northern States, together with the peculiarly favorable nature of our soil and climate to the growth of Mulberry, and propagation of silk worm, compared with that of the States referred to, your committee entertain the opinion, that the introduction of this culture promises to supply a most important remedy for the defects and failures of our present system of husbandry, and indulge the hope that a period is fast approaching, when much of the embarrassment resulting from the want of success in agricultural pursuits, will yield to the influence of a wise and liberal policy in reference to this object.

Your committee deem it unnecessary to enter into a lengthy investigation of the value of silk, and the kind of labor which may be successfully employed in its production, to show the paramount advantages of the culture, and will only advert to a few facts, in connexion with this branch of the subject, in order to prove the soundness of their position.

Your committee are informed, by authority upon which they can rely, that "an acre of land planted with Chinese mulberry, when the trees are full grown, can be made to yield 333½ pounds of raw silk annually, which at \$4.00 per pound, will be worth the gross sum of \$1,333½, and when converted into sewings, at the minimum price of \$7.00 per pound, will amount to the sum of \$2,333.33½ cts. from which, upon deducting \$870.18, an amount sufficient to cover all expenses of culture and manufacture, will result in a nett profit of \$1,463.50 per acre; and that seven-tenths of the labor during the feeding season, can be performed by children from 7 to 10 years of age, and by aged and infirm persons."

This, as your committee perceive, would give a comfortable support to hundreds of widows and children, now dependent, from their helplessness and want of employment, and bring into active

value a large portion of slave labor, at present wholly useless to the owners. It is also stated, upon like authority, that "silk made from worms fed on foliage, grown on thin, poor, sandy or gravelly soils, is the most lustrous and tenacious, and commands the highest price, whether sold as raw silk for manufacturing purposes, or for sewings;" a statement which, if true, while it favors the pleasing anticipation, may be reclaimed without any extraordinary effort or outlay, and made subservient to the common weal, affords an additional inducement for the introduction and encouragement of the culture.

May not your committee, therefore, flatter themselves, that by the introduction of this new resource of industry, many who are induced to abandon the home of their childhood, in quest of a more fertile soil, with a view to reap more abundant harvests, and be better repaid for their toil, might be prevailed upon to continue their residence among us, with the full assurance of competent support. In order to show the amount of profit which may be expected to inure to the State at large, from the cultivation of silk, your committee beg leave to refer to a report made to Congress at the last annual session, from which it appears, that "the importations of silks during the year ending 30th September, 1837, amounted to \$17,477,900; and, as the committee observes, "most of this enormous amount is consumed in this country, and is an annual tax upon consumers, and a total loss upon them and the country, who are unproductively or unprofitably employed, to produce and manufacture the whole amount. If this be so, it follows as a necessary consequence, that we sustain an annual loss of double that amount in our unemployed and misapplied labor."

Assuming these positions to be correct, your committee foresee, that when our farmers come to adopt this culture as a branch of husbandry, thousands will be added to the annual value of our products, to the no small advancement of the best interests of society.

When your committee reflect upon the importance of agriculture to the welfare of the State, its past failures, and present depressed condition in Maryland, together with the prospect of a falling off in population, from the operation of these causes, they regret the indifference with which the Legislature has treated its claims; that while millions have been bestowed upon other objects, agriculture alone, without which, in a country like ours, no other enterprize can succeed, should have been passed by unheeded, and be left to struggle against every obstacle, unaided and unassisted. In view, therefore, of all these considerations, they are impressed with the necessity of a change of policy in regard to this most important object. Your committee think it is due to the claims of agriculture, to appropriate some portion of the State's funds towards its improvement, and they know of nothing so well calculated to effect this purpose, as the silk culture. Some of our enterprising citizens have already engaged in the business, and have succeeded in raising and manufacturing fine specimens of sewing silk; but the cultivation is very limited, and may be said to exist only in a state of infancy. Under these circumstances of the culture, partial failures may be expected to attend the first attempts of our farmers,

from want of information; losses will doubtless be incurred from inexperience; and it only requires the munificent aid of the State to ensure the benefits of a successful pursuit of this branch of industry, by supplying bounties upon production, sufficient to cover such losses, and excite a spirit of enquiry among our agriculturists.

Your committee therefore deem it expedient to grant the prayer of the petitioners, and beg leave to submit a bill embracing the object prayed for.

All of which is most respectfully submitted.

S. N. C. WHITE, Chairman.

By order,

Jos. C. TALBOTT, Clerk.

A bill entitled an act to promote the growth and manufacture of Silk.

Section 1. *Be it enacted by the General Assembly of Maryland,* That whoever shall transplant one hundred Chinese or Multicaulis mulberry trees, of three or more years' growth, on his, her or their land, within this State, at such distances from each other as will best favor their full growth and the collection of their leaves, shall receive, at the end of two years next after such trees shall have been transplanted as aforesaid, one dollar, and in the same proportion for a greater number transplanted as aforesaid, upon proof and certificate thereof, as hereafter prescribed, and that such trees were, at the end of said two years after transplanting as aforesaid, in a healthy and growing condition.

Sec. 2. *And be it enacted,* That whoever shall raise sound cocoons, of a firm grain, and of a pale or yellow color, with the two ends round, and sufficiently strong to resist moderate pressure, within this State; or whoever shall reel or cause to be reeled therein, upon any of the improved methods of reeling silk from the cocoons, merchantable silk, capable of being manufactured into the various silk fabrics, shall have and receive for such cocoons and reeled silk, upon proof and certificate, as is hereinafter provided, ten cents for every pound of cocoons, and fifty cents for every pound of silk so reeled as aforesaid.

Sec. 3. *And be it enacted,* That it shall be the duty of any three justices of the peace in the county where any trees shall have been planted as aforesaid, or where any cocoons shall have been raised of the quality required by the second section of this act, or any silk shall have been reeled in the manner prescribed by the aforesaid section, upon application of any person or persons claiming any bounty for the same, carefully to examine such claim or claims, and upon proof that the same are well founded under the provisions of this act, to give a certificate thereof, under their hands, directed to the Secretary of State, to such person or persons so claiming as aforesaid, specifying on what account such bounty becomes due, and the amount thereof; and the Secretary of State is hereby authorised and directed, upon the receipt of said certificate or certificates, to draw an order or orders upon the Treasurer of the Western Shore in favor of the person or persons to whom such certificate or certificates shall be given for the sum or sums due thereby, and the aforesaid Treasurer is hereby authorised and required to pay the same out of any unappropriated money in the Treasury.

Sec. 4. *And be it enacted,* That it shall be the duty of the Secretary of State to file all certificates executed and directed in the manner prescribed by the third section of this act, and make report of the justices signing the same, the sum or sums found due thereby, the names of persons claiming said sums, and the counties in which they reside, to the General Assembly, on or before the first Monday in February annually.

[From the Yankee Farmer.]

MALPE SUGAR.

Now is the time for many to give their attention to this sweet subject, and be prepared to attend to this business, for in this unusual, unchanging season the time for catching sap may soon be along; and none who have an opportunity should neglect to obtain one of the most delicious sweets. We never yet saw the sugar though improved with the refiner's art, for which we would exchange for good maple sugar. As to the expense of making it we have but little to say, as a calculation made for one place would not answer for another. In some places wood is of but little value, while in others it is worth several dollars a cord standing; and there is also in different situations a vast difference in the advantages of catching sap and reducing it to sugar; and thus again the price varies in different sections of the country. In some cases two or three boys have made 800 or 1000 pounds in a few weeks, when they have had but little else to do, and the wood consumed was of no value of consequence. We would not undertake to give the best method of making maple sugar, but as there have been inquiries on the subject we will make a few remarks which may be beneficial to some.

Vessels for catching Sap. In some parts of the country birch bark may be obtained for buckets which cost a mere trifle. Troughs of soft wood cost but a few cents apiece, and they are more durable, but after the first time of using they are difficult to keep clean, and they doubtless have some effect in giving the sugar a dark color. In some places vessels holding about two gallons have been made similar to pails without bails, and hooped with small iron hoops, at an expense of about 15 cents each. These are cheap and handy, easily kept clean, and if they are housed, with the large end down, to prevent their falling to staves as they shrink, they will be very durable.

Method of Tapping Trees. The old fashioned, bungling method of notching trees should be completely exploded, as it injures the trees, not only by unnecessary cutting but by allowing the sap to run to waste after the time of catching the sap is over. We have preferred the following method: Take pieces of soft seasoned wood, from three-fourths of an inch to an inch square, and from ten to eighteen inches long; bore into one end about three inches with a small bit or gimlet; cut away the end that is bored regularly and smoothly, so that it will follow a half inch auger or bit; then commence about two and a half inches from that end and cut slanting nearly to the centre, and take off nearly half of the piece to the other end, this will come down to the hole, and from that a small channel should be made to the other end. It may be well to burn

out the hole with an iron, lest it become filled by driving the dust into the tree and by its being swelled with sap. Bore into the tree about an inch and a half, and drive in the spout, and if it be properly shaped, and the auger or bit be sharp so as to cut smoothly, no sap will be wasted; it will all run through the spout and down the channel. As it is best to bore the hole near the ground or snow, and as it is necessary to bore up a little, it is rather inconvenient boring with an auger, and a centre bit is much the best instrument; it will cut more smoothly and will not require half the labor.

*To prevent in a measure injury to the trees—*By tapping the trees as we have named, they will be cut but very little; when you are done catching sap, take out the spoons and save them carefully for another year; and drive in a stopple of soft wood, otherwise the sap may run occasionally for several weeks; let the stopples come out of the tree about two inches that they may be taken out conveniently when the weather becomes so warm that the sap will not run, and the trees begin to grow. If the tree be thrifty the hole will soon be closed, and in the fall scarcely a scar will remain. We have noticed on cutting trees a few years after they have been tapped that those managed as above directed had scarcely a mark where they were tapped; while those in which the stopples were left were considerably decayed around them.

An ingenious economist observed to us that the best method of tapping trees was to drive a gouge into the tree a little, and then put in a piece of wood in the shape of the gouge; this method may do well and save time, but it would be liable to one objection—the sap will run frequently after the time of catching it is over, and cannot be stopped when the trees are tapped in this manner. As we have found that the sap after a run of a week or more is not much more than half as sweet as the first run, and not so good for sugar; and as the trees are evidently more injured by running a long time, we have preferred catching the sap about one week from one set of trees, then stopping them up and tapping another parcel. When one has a plenty of trees this method is good, as what sap is obtained is superior, and we think it is better to injure many trees a little than to injure a few much.

*Method of boiling—*When wood is of but little value, and much is done in sugar making, the boiling is usually done in the woods. In boiling in a common fire place, so much wood is consumed that if it be worth only 40 or 50 cents a cord standing, and the expense of cutting and hauling be added, the cost for wood will be equal to the value of a large portion of the sugar made, and the manufacturer will get but little for his labor; but in using kettles properly set in arches, it will not require more than one-fifth or one-fourth of the wood. Reckoning wood prepared for the arch at \$2 per cord, it would not probably cost for wood more than one-eighth the value of the sugar. Kettles may be set temporarily at a very small expense in an arch, in a large fire place, and thereby save a great deal of wood. Much depends on the manner of setting the kettles. We once had a kettle set in an arch, in a fire place, and on boiling sap we found that it required as much wood as in the fire place; on examination we found that there was left too large a place for

letting off the smoke, and we stopped up about two-thirds or three-fourths of the passage, and saved three quarters of the fuel. We name this fact to show the importance of having kettles properly set; there should be draft enough to cause the fire to burn well, but it should not be so strong as to prevent it from playing round the kettle. When the passage from the arch is not large enough, or from some cause the draught is not good, the fire will not burn well and the smoke will come out of the mouth of the arch. When the passage is large and the draught too strong, the flame will pass off directly without hardly touching the kettle, and a great part of the heat will escape. When the kettle is properly set, the fire will burn moderately and pass up to and around the kettle, and much of the heat will be communicated to the sap.

On making the sugar clean and light colored. The vessels for the sap should be kept as clean as possible, and the greatest neatness observed in every process of making the sugar. Before boiling the sap, strain it through a thick cloth, or a cloth doubled several times, so that it will but just run through. When it is boiled down to sirup, strain it again into a long upright vessel, and after it has set 10 or 12 hours to settle, draw off the sirup a few inches from the bottom as long as it runs clear. We have found this to be an excellent method to obtain clean sirup, as the impurities will settle to the bottom. What remains in the bottom should not be wasted, but put into a vessel until a considerable quantity is collected, then add sap to it and drain it off from the dregs; in this manner all the sweet can be saved.

On refining the sirup.—There are several simple methods for refining sirup. Before it is taken from the kettle, put in a small quantity of fine slaked lime, stir it well, let the sirup be almost to a boiling heat, and as the scum rises, take it off. Part of the lime will rise to the top, bringing the impurities with it, and the heavy parts will be deposited and separated by settling as above named.

After the sirup is settled and again put into the kettle, it may be further cleansed by putting about a pint of sweet milk into five or six gallons, stirring it well, and scumming it as it becomes heated. Another method is to put four eggs, well beaten, into six or seven gallons of sirup; stir it, and scum as above.

Very good clean sugar may be made by straining the sap, and straining and settling the sirup, but its appearance will be further improved by the use of one or two of the above methods of purifying, according to the pains one is disposed to take.

Draining the molasses from the sugar.—There is a portion of the sirup that will not form sugar; this becomes molasses as it is boiled down, and if the sirup be boiled till dry, the molasses remains among the sugar, causing it to stick together, and producing a dark color. To prevent this, a small portion should be taken from the kettle, as it becomes thick, and cooled, and when it forms into grains of sugar as it cools, the boiling should stop. Then put the sirup into a vessel, a long one with the bottom smallest is preferable, previously prepared by having a small stopple at the bottom, and when it becomes cool, take out the stopple and the molasses will drain off and leave the su-

gar. This will improve the appearance of the sugar very much. Some persons suppose that the sugar is more lively and better, for having the molasses kept in it till a short time before it is used; and for that reason they put the whole into a tub or other vessel, and then make a hole in the middle of the sugar and dip out the molasses as they want to use it, and use the sugar on the sides from which the molasses is drained.

The following process for refining sugar is given by Chaptal, a celebrated French chemist, who has manufactured beet sugar very extensively:

We will first give the processes of purifying the juice and the sirup. The juice (of the beet) is first heated to a temperature of one hundred and eighty deg., thirty-two deg. below the boiling point, when some milk of lime, prepared by throwing some warm water on to lime, is thrown in, and the liquor well stirred. As soon as the first bubble makes its appearance, the fire is extinguished, and the liquor left at rest. A scum rises, thickens, dries and hardens. The liquor becomes clear. The lime unites with the mucilage, and settles to the bottom. The scum is removed and the clear liquor drawn off. The process requires an hour, and sometimes much more. The sirup is afterwards refined by animal charcoal and the whites of eggs, and filtered through a coarse, thick, rough cloth. Moulds of tin or other materials are prepared, of any size, of a conical shape, like the form of a sugar loaf, with a stopper in the small or lower end. When sufficiently reduced, the sirup is turned into them; as soon as granulation has begun on the surface and sides, the crust is broken with a spatula, and the whole stirred well; after which it is left alone. After this the process of whitening or claying is thus managed: the clay is first thoroughly washed, till it requires such a degree of consistence as not to flow when placed on a smooth and slightly inclined board. It is then thrown on to the sugar in the moulds. The moisture penetrates the loaves, deprives the sugar of its color, and passes out at the point of the mould, which should now be unstopped. The clay deprived of its water, shrinks and dries, and is removed. A second, and sometimes a third application of clay is made, before the sugar attains its desired whiteness.

[From the London Farmer's Magazine.]

JERUSALEM ARTICHOKE.

"I was determined to prove whether or not they could be cultivated to greater advantage than the potatoe, as *food for cattle*. One sack was consumed by a young calf at hand; it eat them with avidity, and improved on them. I took the other two sacks and planted them in the midst of a five acre piece of potatoes. I set them without cutting,—measuring correctly an eighth part of an acre; the produce was in proportion to 630 bushels per acre,—the potatoes 327 bushels. The following year, the memorable one of 1826, I planted half an acre on a piece of thin gravel, old tillage land, in its regular course of preparation for a vegetable crop after wheat; they maintained their verdure through that extraordinary dry summer, and produced 150 bushels; but the potatoes by the side of them were completely set fast; they never formed a bulb. The year following I set an acre on part of the same kind of soil, but of better quality; it produced 570 bushels, *without*

any dung. An half acre on the same land, with the usual quantity of dung for turnips, produced 290 bushels (a bad compensation for eight loads of excellent dung.) This present season, an acre on the same land (part of my turnip, fallows) produced 576 bushels, but the wet state of the soil when taken up, and being a vegetable of uneven surface, which causes the soil to adhere to it more than to a potatoe, renders it difficult to come at the exact quantity. From an experiment I made of washing a sack, I can safely assert, I have 530 bushels of clean roots; whilst the vegetables on our flat gravels do not equal this by full 50 per cent in value, except the potatoe, which produced 308 bushels on the same soil. I never could raise more in favorable seasons.

"The cultivation of the artichoke is the same as of the potatoe, except that it requires to be set early—not later than March; if laid above ground all winter, it is proof against the severest frost. When once cleaned, no weed can live in its dense shade; horses, beasts, and sheep consume it with avidity; pigs prefer a potatoe to it in its raw state, but prefer the artichoke when boiled or steamed. It attracts the game in a most extraordinary way; they resort to its shade in autumn; it forms one of the finest covers in nature. We are so fortunate as to have but little game in our lordships; I do not recollect ever having seen even a Swedish turnip bitten by a hare or rabbit, notwithstanding they will consume the artichokes left by the men in securing them.

"If potatoes can be profitably cultivated as food for cattle, compared with Swedish turnips, mangelwurtzel, the sugar beet, &c. (which I much doubt,) the artichoke is vastly superior to them. The expense of culture is no more; it is not liable to be injured by frost; can be taken up at pleasure; it produces at least 30 per cent. more, and on poor land full 50 per cent. is *far more nutritious*, and leaves the land perfectly clean. The only object that can be urged against their cultivation for cattle in competition with potatoes, is, that they require more care in taking them up. The frost not acting upon them so as to destroy vegetation, what are missed will, of course, grow among the succeeding crop, but I have found very little inconvenience in this respect."

[From the Yankee Farmer.]

FARMING IMPLEMENTS.

The following conclusion of a report of the Penobscot Agricultural Society, applies to many farmers in different parts of the country.—There is generally great neglect as to agricultural tools, implements, and labor-saving machinery. While many farmers are paying a high price for labor, or neglecting necessary work for want of it, and sometimes losing much by not being able to accomplish their work in due season, they are neglecting to procure new and improved implements, &c. which at a small expense would enable them to do away or greatly lessen these evils.

In the season of hoeing, we should prefer one hand with us and a cultivator, to two hands without this useful implement; we could do more work, do it easier, and do it better. Some farmers suppose that the cultivator is useful only on smooth light tillage, but this is a great mistake; we have used it to good advantage on ground that was uneven and rough with turfs and loose and

fast stones. It will not do so much good on a rough field, nor will a plough; where the plough can be used to tear up and turn over the soil, the cultivator may be used to loosen and pulverize it.

"It is with great regret that we are compelled to make this very meagre report of one branch of the exhibition, which should and might have afforded great interest and eminent usefulness to the farming community. The implements of the farmer are as essentially necessary to the prosecution of his work with profit and ease, as are the contents of the carpenter's chest to him; and no artisan of that craft is 'a workman' unless he possesses a sufficient number and variety of instruments best adapted to his vocation.

How different the case with our brother farmer! How few are his implements! How ill adapted to the ease, profit and convenience of his multifarious occupation. Instead of procuring the tool best calculated for a particular object, he 'puts up' with any thing that has the semblance to the thing he needs. It is scarcely to be credited, the few tools to be found upon most farms, and good farms too, in our vicinity.

A plough, harrow, hoe and shovel, with a small sprinkling of forks and rakes, and a few nameless et ceteras, comprise the whole range of most of our tool sheds; and these too so ill constructed! requiring in many cases twice the power to use them that better contrived implements do; uselessly consuming time, talent and temper; to say nothing of the wear and tear of conscience that such fretting is apt to induce.

In this connexion it may not be improper to remark, that one great cause of the want of success in agricultural pursuits may be found in the high price of labor, and the want of economy in the expenditure of that labor. The substitution of animal for manual labor, wherever it can be advantageously introduced, adds greatly to the ease, despatch, and extent of a farmer's work; and it is matter of surprise that it should obtain so few PRACTICAL advocates in our farming community; in theory it has numerous friends and supporters. How various are the enterprises to which Yankee ingenuity is directed in the construction of labor-saving machinery! and yet the farmer will look with satisfaction upon every invention that has no connexion with his own vocation. The patent washing machines, and the shingle and saw and clapboard machines, readily attract his attention and excite his admiration; but the drill-harrows, improved ploughs, threshing and other implements more closely connected with his own calling, excite scarce any notice except an incredulous smile or a direct sneer. Now these things ought not so to be.—The farmer can more readily and cheaply increase his non-consuming laborers, than any other craftsman in the community; and it only needs a little forethought and consideration, and determination to 'go ahead,' to break from the shackles of that iron-sided old despot—early prejudice. In other states, the grandsire's bag and stone are giving away to the crank and wheel of the man of to-day, and until we follow such leaders, our labors will be drudgery and our farms a moth.

There are no doubt many labor-saving contrivances that possess so many conveniences in theory, that they are exceedingly inconvenient in practice; but an intelligent, discriminating man

will readily separate the simple, well-contrived, well-adapted instrument, which shows its object at a glance, from the complicated, counteracting contrivance of the muddy-headed schemer.

The cultivator, for instance, with a horse, man, and boy, will hoe more ground in one day, than ten men with hard labor will hoe without it. The roller, with a pair of oxen or horses, will smooth more ground, and drive more stone out of reach of the scythe, than five times that amount of cost in the shape of manual labor. A man or a boy with a drill machine, will sow more turnip seed in three hours, than two men could sow in two days; and it shall scarcely be labor to him, while the backs of the men shall be as crooked as the furrows they sow.

No man who has a hill-side to plough will pretend to turn his furrows up-hill if he wishes to make 'good work.' He must either plough up and down hill, and from very superior water courses, by which his manures may run off, or he must 'carry his furrows,' and lose half his time and labor: let him put on a side-hill plough, and he will do in one day what it would require two days to effect with a common plough. Now there are few, comparatively none, of these implements in use in this vicinity, and the instances above cited show conclusively the great lack of Yankee inquisitiveness which prevails here, and which our meagre show of farming tools so strikingly exhibits."

Curious Bird—One of the most singular species of the feathered tribe probably in this country may be seen at the store of Mr. John P. Bessonnet, No. 60 Nassau street. We are not sufficiently versed in ornithology to say to what genus the remarkable bird belongs, any more than it is said to be a native of the West Indies, is principally black, with a yellow streak near the neck, and about the size of a crow. Its greatest peculiarity consists in its close imitation of the human voices, and the accuracy and distinctness with which it pronounces a number of words and sentences that it has been taught, and the facility with which it catches and repeats almost every description of sound. It has the faculty not merely of repeating what is said to it, but also of making permanent replies to ordinary questions put to it. Its voice closely resembles that of the old gentleman to whom it belongs, and for whom it seems to have an affectionate regard. When a stranger enters the store the bird usually calls out to its master in the adjoining room, "Uncle John—somebody in the store."—If it be asked by a stranger what its name is, it readily answers "Mingo"—"poor Mingo." And not unfrequently returns the interrogatory, "what's your name?" It salutes every one that comes in, with a cordial "good morning," laughs heartily at all the jokes which pass at its expense, whistles an infinite variety of tunes, coughs like an old man in the consumption—and in short, is so perfect in its imitation of the human voice, as to deceive any one who has never before heard him.—*N. Y. Express.*

From the Zanesville Gazette.

EXTRAORDINARY PRODUCTION.

If the amount of products given in the statement below, which is taken from the Bangor (Maine) Mechanic and Farmer, can be obtained from one a-

cre and ten rods of ground, inferior in natural fertility to most of the soil cultivated in the state of Ohio, and under the 45th parallel of latitude, where snow lies on the ground from November to May, what might not be realized from a judicious course of cultivation under our superior natural advantages of soil and climate?

Mr. Sayward—Although a mechanic, I have paid a little attention to agriculture for the last two years, and I thought it might not be uninteresting to your readers to know, that the lands of the Penobscot, when properly cultivated, will yield as abundant an increase, as any of the western lands, of which so much is said of the fertility. The piece of land which I cultivated for vegetables, the past season, contains by measurement, one acre and ten square rods. It was cleared in the spring of '35; and the stumps grubbed in the fall, but I had many green roots to contend with this year. The land was ploughed in good season, and a tolerable dressing with manure, (not extra) and the seed planted in season, and good care taken that no weeds should sap the ground, and I give below the result of the harvest, with the prices of the vegetables as they are now worth.

200 bushels potatoes worth 40 cts. per bushel,	\$80.00
50 bushels dug early for market and family use, at 60 cts. per bushel,	30.00
150 bushels ruta бага at 40 cts.	60.00
40 " carrots, at 50 cts.	20.00
20 doz. cabbages fit for market, \$1,	20.00
20 " " worth 50cts	10.00
8 bushels blood beets at 5s.	6.67
5 " parsnips at 5s.	4.17
20 " cucumbers at 6s.	20.00
20 doz. summer squash at 40 cts.	8.00
800 lbs. winter " at 9s. cwt.	12.00
10 bushels mangel wurtzels at 30 cts.	3.00
10 " string and shell beans at 4 s.	6.67
100 roots of celery worth at 4 cts.	4.00
Sold early green peas to the amount of	9.00
" " radishes "	4.00
100 hills of early corn for family use, averaging 4 ears to the hill, worth in market 12½ cts. per dozen,	4.13
Different kinds of garden seeds raised, if bought at the seed store would cost	8.00
Lettuce and other vegetables for sallads, for family use—say	2.00
	\$311.64

I might have sold from 4 to 5 lbs. of summer savory, and about as much balm, and a supply of sage, saffron, hysop and caraway, for family use, for which your readers may judge of their value.

J. BROWN.

[From the Centreville Times.]

MORUS MULTICAULIS TREES.

As the season for planting mulberry trees is rapidly approaching, it would be well for those who intend to grow them to make their arrangements at once, or they may not be able to obtain a supply, as there are none on the Peninsula, or this side of New York for sale, except in this neighborhood.*

For the profits of the silk business we refer the public to Roberts's manual, published in Balti-

*The editor of this paper has some for sale. [Ed. Farmer & Gardener, Baltimore.]

more, and to other publications relative to the silk culture. The profits of growing the mulberry may be ascertained by inquiring of almost any person in this place—we give the following facts.

The Silk Company purchased in 1835 about 400 dollars worth of trees and cuttings; they have sold and have now for sale from that stock, enough to bring ten or fifteen thousand dollars, leaving them a large supply for feeding the worms.

Mr. Granger of Centreville bought \$66.66cts worth of trees last April, he has sold about eight hundred dollars worth.

Col. Tilghman bought in 1836 about fifty dollars worth; he has sold 225 dollars worth and has on hand about eighty trees with their limbs for his own use—the gentleman who purchased from him, sold again at an advance of more than \$300.

Mr. Booker & Co. bought \$40 dollars worth last April and sold in November two hundred dollars worth, and have their old trees and cuttings on hand.

A gentleman who was on the silk farm when the company were planting last April, picked up fifty or sixty cuttings which had been thrown away as useless; he planted them and has sold \$40 dollars worth of cuttings, and all of his trees on hand.

Several other such cases might be mentioned, but the above is sufficient. Many of the nursery men to the north have made fortunes by the growing and sale of the mulberry, and as the silk business is becoming more popular, it is likely that the demand, which has increased, will continue for several years to come.

Fire proof Cement.—The French cement for the roofs of houses, to preserve the wood and protect it from fire, is made in the following manner:

Take as much lime as is usual in making a pot full of white wash, and let it be mixed in a pail full of water; in this put two and a half pounds of brown sugar, and three pounds of fine salt; mix them well together, and the cement is completed. A little lampblack, yellow ochre, or other coloring commodity, may be introduced to change the color of the cement, to please the fancy of those who prefer it. It has been used with great success, and been recommended particularly as a protection against fire. Small sparks of fire, that frequently lodge on the roofs of houses, are prevented by this cement from burning the shingles. So cheap and valuable a precaution against the destructive element, ought not to pass untried. Those who wish to be better satisfied of its utility can easily make the experiment, by using it on a small temporary building; or it may be tried by shingles put together for the purpose, and then exposed to the fire.

From the Freedom's Sentinel.

DENTON, Caroline Co. E. S. Md. Feb. 17.

Pursuant to notice a number of the citizens of Caroline assembled in the Odd Fellows' Hall in Denton, at 2 o'clock, for the purpose of forming a Silk Company. The meeting was organized by calling Dr. Geo. T. Martin to the chair, and appointing Geo. F. Mason, secretary. After which, the meeting proceeded to form a company to be called the Denton Silk Company, with a capital

* If 1 lb. of alum be added it will greatly improve the cement. [Ed. Farmer & Gardener.

of \$2500, with the privilege of extending it to \$10,000.

On motion, the company proceeded to make choice of seven directors, who are as follows—Dr. Wm. A. Tatem, John Jump of P. Jos. Pearson, Wm. Bailey, Joshua Clark, James Dukes and James Sangston, esqs. After which the meeting adjourned to the 10th March next.

GEO. T. MARTIN, Prest.

GEO. F. MASON, Sec'y.

Productive Cow.—The cow late belonging to Mr. Thomas Walker, Dubgarth, near Clapham, which we twice noticed in our gazette in the autumn, 1836, on account of her uncommonly large production of butter, calved a few weeks ago in the possession of Mr. Stephen Dawson, of Gildersleets, near Settle, (the present owner,) who gave orders to keep her milk separate from the dairy one week, and her produce in butter has been 22 lbs. 16 ounces to the lb. Though this falls somewhat short of what was gained from her last year, in the same period of time, yet Mr. Dawson avers that her food has been no better than common herbage, and he has not the least doubt or hesitation in saying, he believes, by improving her food with provender, &c. he could improve and increase her quantity of butter a few pounds per week; this extraordinary animal, (whose weight if well grazed is not judged to exceed 12 stone per qr.) is perhaps an exception to the qualifications of any cow in England.—*English paper.*

TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$20 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$20 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Scythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms, and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled *entire* all orders in the Agricultural and Seed Departments.

feb 13

JOHN T. DURDING & Co.

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain, \$250, as his owner, desirous of changing his cross-bought another bull at the sale of Mr. Whittaker's stock. Uncas has a pedigree tracing to the herd-book, and will be warranted pure.

Applications by letter to be post-paid. Address
s 29 EDWD. P. ROBERTS, Baltimore, Md.

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old Nortorn Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next, on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr dam, (Layd Sarah) by Pilot; gr gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Scurr, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street, near Pratt, three doors in the rear of Dinsmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT; BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; BUCKWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS; WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by John T. Durdin & Co. at their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinsmore & Kyle's. N. B. Fruit and Ornamental Trees furnished to order by giving timely notice—double Dahlia and other bulbous roots, together with flower Seed of superior kinds, furnished to order. feb 13

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	7 00	8 50
CORN, yellow	bushel	70	72
White	"	75	76
COTTON, Virginia,	pound	16	12
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	45	50
FLAXSEED,	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's	"	—	—
SuperHow. st. from stores	"	7 87	8 00
" wagon price,	"	7 50	7 75
City Mills, super	"	7 80	8 00
" extra	"	8 25	8 37
Susquehanna,	"	—	—
Rye,	"	6 50	—
Kiln-dried Meal, in hhd.	hhd.	19 00	—
do. in bbls.	bbl.	4 00	—
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 25
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	—	7 50
Slaughtered,	"	6 25	7 00
Hops—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	—
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	5 50	—
Ground,	barrel.	1 50	scarce
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	85	90
Susquehanna,	"	—	none
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
" for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 65	1 70
Red, best	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls. }	gallon.	33	—
" in hhd. }	"	34	—
" wagon price,	"	bbls	30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces,	pound.	40 to 50	20 22
Full Merino,	"	35 40	18 20
Three fourths Merino,	"	30 35	18 20
One half do.	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this fall, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	13	13½
Shoulders, do.	"	11	—
Middlings, do.	"	11	—
Assorted, country,	"	10	—
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	5 00	6 00
Cows, new milch,	"	30 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 68	—
CHOP RYE,	"	1 50	1 62
EGGS,	dozen.	12½	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	3 00	—
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,	"	5 75	—
Cod, salted,	cwt.	8 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virgi. 1½a 1½
Branch at Baltimore,	do	Bank of Virginia,
Other Branches,	do	Branch at Fredericksburg, 1½
MARYLAND.		Petersburg,
Banks in Baltimore,	par	Norfolk,
Hagerstown,	½a	Winchester,
Frederick,	do	Lynchburg,
Westminster,	do	Danville,
Farmers' Bank of Mary'd, do	do	Bank of the Valley, ..
Do. payable at Easton,	do	Branch at Romney, ..
Salisbury, 1 per ct. dis.	do	Do. Charlestown, ..
Cumberland,	par	Do. Leesburg, .. 1½a 1½
Millington,	do	Wheeling Banks, 3a 3½
DISTRICT.		Ohio Banks, generally 6a 7
Washington,	do	New Jersey Banks gen. 5
Georgetown,	do	New York City,
Alexandria,	do	New York State, 3a 4
PENNSYLVANIA.		Massachusetts, 3a 3½
Philadelphia,	par	Connecticut, 3a 3½
Chambersburg,	½	New Hampshire, 3a 3½
Gettysburg,	do	Maine,
Pittsburg,	3½	Rhode Island, 3a 3½
York,	½	North Carolina, 5
Other Pennsylvania Bks. 2		South Carolina, 6a 7
Delaware [under \$5] 4		Georgia,
Do. [over \$5] 1½		New Orleans,
Michigan Banks,	10	—
Canadian do. 10		—

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.

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GREEN'S PATENT and common DUTCH STRAW CUTTERS.

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Grain Cradles and Grass Sneaths, with warranted Scythes attached, Sickles, Scythe Stones, Grain and Hay Rakes, Hay and Manure Forks, with 2 a 6 prongs, Ox Yokes, Grubbing Hoes, Docking Irons, Ames' Spades and Shovels, cast steel Axes, Bramble Hooks, Hay Knives, Box, Pruning and Sheep Shears, Grass Hooks, Pruning Knives, Children's Spades, and various other Garden Tools.

Merchants wishing to purchase Ploughs and Castings to sell again, will find it to their interest to examine our stock, being the largest and most general assortment in this city, and for sale on liberal terms.

GARDEN & FIELD SEEDS—Just received from Europe, and from the Claimant Seed Gardens near this city, an extensive assortment of Garden and European Field Seeds, warranted fresh and genuine, viz.

French Sugar Beet Seed, Mangle Wortzel, Ruta Baga, superior Beet and Radish Seeds, early and late Cabbage Seed, 30 kinds early and late Peas, bunch and pole Beans, Hybrid and other Turnip Seeds, Cauliflower and Broccoli; Scotch Kale, Parsnip, Carrot, Cucumber, Lettuce, Onion, Summer and winter Squash, Melons, Leek, Celery, Okra, Salsafy Cress, superior assortment of Flower Seeds, Herb Seeds, etc. etc.

FIELD SEEDS—English and Italian Ray Grass, Trefoil, Burnet, St. Foin, Lucerne, white and red Clover, green and blue Grass, early Potatoes, Gama Grass Roots, Baden and Mercer Corn, Italian and Tuscany Wheat, Timothy, Herds and Orchard Grass, Millet, etc.

TREES AND PLANTS supplied at the shortest notice from the Claimant Nurseries, near this city.

Wanted, prime lots Seed, Grain and Grass Seed. march 13 6t

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 47.

BALTIMORE, MD. MARCH 20, 1838.

Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, MARCH 20, 1838.

THE SUGAR BEET CULTURE.

We publish in this day's impression, a letter and accompanying communication from *James Ronaldson, Esq.* of Philadelphia, on this interesting subject. As the reader will perceive by the letter of Mr. Ronaldson, the communication is "from an intelligent gentleman in France, who takes an interest in the prosperity of this country, and in every thing that is cultivated to benefit society, and contains an account of the practices of the *French farmers* in the cultivation of the *Beet root* for sugar."

Thanking Mr. Ronaldson for his kindness and attention in making our journal the medium of communicating the valuable information comprised in the paper alluded to, we respectfully ask for it a careful reading by every agriculturist. It is important to all, whether their views be to cultivate the beet for the purpose of making sugar, or for feeding stock, as there is not the least doubt of its being one of the most valuable roots grown for the latter purpose. For yield and nutrition, the acreable product being considered, it is exceeded by none; nor are there any in the whole range of root culture more acceptable to the palates of stock, generally, or more promotive of the secretion of milk when fed to milch-cows. With respect to its yield, we have no hesitation in saying, that if properly cultivated on good soil, well manured, a thousand bushels may be raised on an acre. This will not be considered an extravagant calculation, when it is recollected, that if planted 2 feet in the rows and 1 foot apart, an acre is capable of producing 1089 bushels, the beets averaging each 3 lbs. This will not be considered a *large average*, when the fact is known, that the beets frequently grow to the weight of ten pounds, and have attained that of twenty-two pounds, under peculiarly favourable circumstances of cultivation and soil.

If then, a thousand bushels to the acre can be grown, we would ask, in what can an acre of ground be so advantageously cultivated? And having asked the question, will leave the cultivator to draw his own conclusions.

Of the patriotic course of Mr. Ronaldson in devoting the evening of his days to the promotion of the cause of husbandry, we want language to express our sense of gratitude, and we are sure, that the consciousness of the motives which influence him will sweeten his every reflection, and render the remainder of the time allotted to him as peaceful to himself as his generous conduct will be cherished in the eye of his countrymen.

OLD MORTAR AS MANURE.

We have been repeatedly asked by agriculturists residing in the vicinity of our city, whether *old mortar* or *plastering* was worth hauling for agricultural purposes, and we have uniformly answered in the affirmative, wherever the distance was but a few miles. We gave this opinion because we had often witnessed the good effects of its application upon soils for years after being used. But as we do not like to advise the use of any thing, without knowing its precise component parts, we recently made it our business to consult a skilful bricklayer upon the subject of the proportion of lime in a cart load of such substances. His information was to this effect. That to each cart load of sand, say 20 bushels, $2\frac{1}{2}$ bushels of lime is put for brick-work, and that for plastering, from 3 to 4, according to the character of the house, is the quantity. Then, it is evident, that in every single horse cart load of *old mortar* there is but $2\frac{1}{2}$ bushels of lime, and where it is plastering, there are but from 3 to 4; all the rest of either, being sand. With respect to its value, every farmer will be able to judge for himself. For ourselves, if we had a piece of *stiff clay* which we wished to render subservient to the operations of agriculture, we should not hesitate to haul it two or three miles, because the *sand*, as well as the *lime*, would be a useful agent in bringing about the contemplated change in the adhesiveness of the soil; but we certainly would never think of doing so if the land was either *sand* or *loam*;

and for this sufficient reason, that the small quantity of *lime* contained in a cart load would not justify the expense of hauling. If we were asked, what quantity of either of these substances we would put upon an acre, our reply would be—if the soil be very stiff, 40 cart loads of the mortar, or 30 of the plastering. If *sandy*, or *loamy soil*, 20 loads of the former, or 15 of the latter. We mean double-horse cart loads.

GLEANINGS BY THE EDITOR OF THE FARMER AND GARDENER.

Economical use of Manures.—Mr. Parkinson asserts that one great advantage of the drill husbandry, consists in putting the manure into drills, and that four loads of manure, thus applied, is equal to sixteen loads in the usual way of spreading it broadcast. He alludes, of course, solely to the crop to which it is applied, as no possible way by which so small a portion can be applied, could it exercise an extensive influence on subsequent crops.

Lime.—Darwin says that one great use of calcareous earth consists in uniting with the carbon of the soil in its pure or caustic state, or with that of vegetable or animal recrements during some part of the process of putrefaction; and thus rendering it soluble in water, by forming a *hepar carbonis*, somewhat like a *hepar sulphuris* produced by lime and sulphur, by which process carbon is rendered capable of being absorbed by the lacteal vessels of vegetable roots.

Marl.—Anderson gives the following strong fact, illustrative of the good effect of marl. He states that a piece of land on which a thick coat of shell marl was laid, bore good crops for *thirty years*, without additional improvement.

Quincy describes it as a kind of clay which is become *fatter*, and of a more enriching quality, by a better fermentation, and by its having lain so deep in the earth as not to have spent or weakened its fertilizing quality by any product; that it is much of the nature of chalk, and is believed to be fertile from its salt and oily qualities.

Hill understands by the term *marls* simple native earths, less heavy than clay; and

Child affirms that, marling to improve the soil, is of very ancient date.

Crabb delineates it as a *fat* earth, consisting of clay and the carbonite of lime, in which the latter prevails, and as being particularly useful as manures in barren land.

Bacon says marl is the best compost, as having most *fatness*, and not heating the ground too much.

The very meaning of the word signifies *marrow*, or the *fatness* of the earth, which was doubtless derived from its meliorating tendency as a manure.

Soot, says Sir Humphrey Davy, doubtless owes a part of its efficacy to the ammoniacal salts it contains.

As a top dressing for turnips or grass lands, there is nothing superior to it.

Ammoniacal liquor.—The same author asserts, that the liquor produced by the distillation of coal, contains carbonate and acetate of ammonia, and is said to be a very good manure; and in corroboration of his assertion, states, that in 1808, he found the growth of wheat at Rochampton assisted by a very weak solution of acetate of ammonia. We conclude from these premises, that the ammoniac liquor, which is daily drawn off and wasted, at gas generating establishments, would be a most efficacious ingredient in all composts, and that, where convenience and distance justified the hauling of it, it would be found eminently useful for almost all the purposes of agriculture.

Salt.—Sir Humphrey Davy says, that *common salt*, in small quantities is a useful manure.

Sir John Pringle in giving its *modus operandi*, asserts, that in small quantities it assists the decomposition of animal and vegetable manure.

Sir Humphrey Davy further remarks, that the refuse salt in Cornwall, which contains some of the oil and *exuvia* of fish, has long been known as an admirable manure.

Food of the Silk Worm.—For feeding the Silk worm, Sir G. Staunton states that in China, the leaves of the mulberry are increased in size by lopping off the limbs, and adds, that the leaves of the *ash tree* is frequently used there for feeding the silk-worm.

SUPERIORITY OF AMERICAN SILK.

We have before stated that the *raw silk* of America, commanded 2s. 6d. sterling per pound,

more in England than that from India, and we are gratified to find by the annexed extract from the last Northampton (Mass.) Courier, that it is considered to be worth more in that town by from 25 to 33½ per cent. per lb. than foreign silk. With these proofs of the peculiar adaptation of our climate to its production, backed by the irrepressible enterprise of our people, there can be no doubt that the culture must go ahead.

"*Proof Positive* that American grown silk is superior and to be preferred to foreign silk, is made evident from the manufacture of American silk, which was grown in this town, and now in operation at the *New Silk Factory*, by South Street Bridge. The lustre, strength, and reeling is superior to the imported article. The reeling is so perfect that there is but little comparative waste. It is probably worth from 25 to 33½ per cent. per lb. more than foreign silk. This fact is encouraging to silk growers, who can and may grow silk at a better profit than of any other crop."

CULTURE OF THE BEET ROOT.

PHILADELPHIA, March 12th, 1838.

To the Editor of the Farmer and Gardener:

Dear Sir—The advantages of the Beet Root as valuable food for farm live stock of all kinds, and that our climate and soil are so favorable to growing it to great perfection, are discoveries of yesterday, and are facts known to very few, so that we have as yet but little theoretical knowledge, only isolated experience, and but few publications on the best modes of conducting the cultivation and preservation of this root as a branch of field farming and economy.

In the present state of limited information it is presumed the enclosed paper, containing an account of the practices of the French farmers in the cultivation of the Beet-root for sugar may be useful to the agricultural interest of the U. S.

It is from an intelligent gentleman in France, who takes an interest in the prosperity of this country, and in every thing that is cultivated to benefit society.

It has been submitted to a well instructed American farmer, who in transcribing it, has made a few slight alterations in the text, and who has also appended a few notes.

Believing that the climate and circumstances of Maryland, we may say the whole of the United States, are eminently favorable to the culture of the Beet-root, and knowing no better way in which this paper can be seen by the intelligent and enterprising farmers of the country than by placing it in the columns of your valuable publication, I have concluded that it was discreet to send it to you, with a request that you will lay it before your readers.

With sentiments of great respect,

I am, most sincerely, yours,

JAMES RONALDSON.

EDW. P. ROBERTS, Esq.

CULTIVATION OF THE BEET ROOT.

The Beet is a biennial plant, growing to seed the second year. Its seed stalk grows to the height of from one to five feet.

Choice of Ground.

The beet root grows wherever the potatoe grows, viz. in all sorts of soil; that which is somewhat sandy and mixed with vegetable earth is peculiarly suitable. Land essentially sandy should, however, be avoided, as then the beets do not rise well, and do not come to a great size. It is true, that the juice of small beets gives a greater proportion of sugar than the juice of large ones; but the smallness of the volume ought to be considered by the farmer. Sandy soils may no doubt be improved by dressings of *marl* and *clay*. But should clay be originally in too great a proportion, the ground ought also to be rejected, because the seed germinates badly, and the root finding difficulty in penetrating the soil, and embedding itself, becomes forked, and pushing itself to the surface, is there exposed to injury. One of the evils of forking is, that stones become enveloped in the interstices, which deteriorate the instrument used in reducing the beet to a pulp for the purpose of making sugar. Clay soil may be improved by manure and by deep ploughing. In France the farmers plough to the depth of 8 or 10 inches, and for such soils repeated harrowings are useful. Calcareous soils are not well suited to the beet-root, and cannot easily be improved. (*See note A.*)—But soils vary greatly as to suitability, even in the same immediate neighborhood. For instance, in France there are soils which yield a million of pounds of beets per hectare (about 2 acres) but the average produce is from 30 to 40,000 pounds the acre.

Preparation of the Ground.

This varies according to the nature of the soil, but in general three ploughings are necessary, two before or during winter, and the third at the beginning of spring. Many farmers content themselves with two deep ploughings and find that enough. It is useless ploughing very deep if the soil be sandy; but if clayey, the deeper the better. As to the manure, it is well to use that in which the process of putrefaction is not far advanced, inasmuch as it divides the soil and suffers the roots to expand themselves. Farmers who do not feed much live-stock allow the stalks and leaves of the beets to remain in the ground after harvest, and they form an excellent manure. After the last ploughing in the beginning of spring, the ground is harrowed, rolled and harrowed again. Some farmers go so far as to pass the harrow and roller three times over very clayey ground. What is necessary and desirable is, that the surface of the soil be well pulverized, and that there be not too much drought at the time of planting. A slight degree of dampness at seed time is favorable to the beet.

Choice of Seed.

This is of great importance, as on the color of the future roots will often depend the whiteness of the raw sugar, and the price it will command in the market. The quality of the seed is not to be discovered from its external appearance, but it is always possible to prove it, by sowing a sample of it in a pot of vegetable earth and exposing it to a temperature of from 20 to 30° of the centigrade thermometer, (viz. 68 to 86 of Fahrenheit) taking care from time to time to have the earth properly watered. In ten or twelve days each seed will have sent up two small leaves, which after

being somewhat developed, are to be rubbed between the fingers. If the sap which escapes should tinge with red, the seed must be absolutely rejected; because the root will also be red, and it has been proved that the sugar made from the beet-root is of a higher color than that made from white, and that it is also much more difficult to refine it. Should the small leaves be of a greenish color, with yellow or reddish rays, the indication is not sufficiently positive without rubbing them with the fingers. Besides in a large quantity of seed sold as the produce of white beet, there may be some which will produce roots tinged with red or yellow, but from thence it is not to be inferred that they should all be rejected, since the color is not constantly reproduced. The general rule is to sow nothing but the seed of the white Silesian beet.

Mode of Sowing.

There are four ways of sowing beets:—1st, in beds, as in a nursery; 2d, scattered by hand, as in sowing wheat (broadcast); 3d, in rolls or drills; and, 4th, by means of the sowing machine.

According to the first method, the whole of the seed is sown in the seventh or tenth part of the space which the plants are afterwards to occupy. After it has germinated, that is, a month or six weeks after sowing, the beds are thinned and transplanted by means of a dibble. This method is attended with several inconveniences, requiring a great deal of manual labor, and exposing the beets to injury in the process of transportation; the development of the root is also injured—hence instead of having the form of a cone, it divides itself into several branches, and so increases the difficulty of cleaning. In putting the young plant into the hole formed by the dibble, the fibres are liable to be turned up so as to increase the evil. This mode of sowing should therefore be abandoned, although it may be well to have such a bed as a reserve in order to fill up any vacancies arising from failures.

The manner of scattering by hand like wheat is simple. When the seed is sown the ground can only be harrowed. This mode requires a great deal of seed, which is sometimes dear. In Germany it has been known to rise to five times its ordinary price. Sown in this way, it is found that seven pounds an acre are necessary instead of two pounds, the average of other methods. It is true, that nearly the whole soil is covered, and in the thinning the most vigorous plants are left, which ensure a good crop.

When sown in rows or drills, a harrow is passed over the ground, armed with fine teeth, sixteen or seventeen inches apart. In France the business of sowing is managed by women who follow the harrow and put the seed on by one into the furrow the harrow has traced, taking care to place them about 12 or 13 inches apart. The furrow is then filled up by cross harrowing with a closer harrow; by this mode there is a great saving of seed, and the plants are perfectly placed. Four women will sow an acre a day and one horse with his guide will suffice. This method is at once simple and economical.

By the sowing machine the seed is also sown in drills. The drill consists of a sort of case, in the form of a hopper, in which the seed is put; the bottom is in the form of a cylinder of wood, in the surface of which there are cavities for re-

ceiving the seed, these cavities at sixteen or seventeen inches apart. This machine is placed on two wheels, which by means of teeth transfer their own motion to the cylinder, which, as it revolves, receives the seed in its cavities and drops it uniformly into the furrows at intervals of sixteen or seventeen inches, these furrows being formed by means of corresponding shares fixed in front. These shares in the machine are three in number, and should not go farther than half an inch deep. Behind the moving machine three small wheels are fastened, which serve the purpose of rollers, covering up the furrows as they are sown. This manner of sowing the beet root is also simplest and most economical of all. Drawn by one horse, the machine will sow a number of acres in a day, and may be guided by a young lad. The guide must however take care to observe from time to time that the hopper is not empty, and that its holes are not stopped.—(Note B.)

Some French farmers place their rows of beet root 24 and others 26 inches apart. The best average is 16 or 17 with 12 or 13 inches of interval in rows. However sown, the seed should be put in while the ground is still fresh and damp, and should not be buried more than an inch or half an inch, for experience has proved that at a greater depth it is not exposed to the action of air, heat and moisture, without which it does not germinate.

Time of Sowing.

This must always depend on the place, but the best rule is, the sooner the better, because the roots arrive sooner at maturity and the fabrication of sugar may be the earlier began. Practical men are aware that sugar made in September or October for instance is finer and more easily obtained than when the process is spread over the whole winter season. Besides at the early period at least two per cent. more sugar is to be had.—Sow in March if frost days do not forbid, and if the ground be not too damp by which the seed might be liable to rot. All April and the beginning of May are favorable, and some even sow in June. On the other hand if the ground be too dry, the seed will not germinate.

Care to be taken during vegetation.

Few plants suffer more than the beet from the neighborhood of weeds; the ground must therefore be kept clean and fine during the whole period of its development. Three hoeings are necessary, the first when four or five leaves have appeared, the second a month after the first, and the third a month or more after the second. Some farmers have the first weeding done by hand, but most make use of a hand hoe.—(Note C.)—This instrument (the hoe or cultivator) is very expeditious in its operation. There are two advantages attending its operation, that of removing the weeds and that of loosening the earth around the roots which would be necessary if there were no weeds. It should not be attempted after rain or heavy dews, but if done properly the produce will be doubled. During the progress of vegetation all unhealthy plants should be removed; and the tops of the stalks cut, of such as seem growing to seed, as in flowering a portion of the saccharine qualities of the root is lost. Some farmers remove a portion of the leaves of the growing plant with which to feed cattle, but imprudently, as a loss of sugar is thereby also sustained.

Harvest.

The time for digging up the beets is when the roots are fully developed. This will arrive sooner or later according to the time of sowing. In France the usual time is the end of September or the beginning of October. Beets are known to have reached maturity when the leaves which have been firm and of a bright green color begin to sink (droop) and turn brown and yellow. If left longer in the ground the sugar is daily lost and is replaced by saltpetre. The instrument used in harvesting is a common spade with which a deep cut is made in the ground in front of each plant, by which a laborer removes it by hand, shaking off the earth, but taking care not to knock one root against another. He lays each beet carefully on the ground with the stalks all turned in the same direction. A laborer with a sharp cutting spade follows, and at a single blow separates the stalk from the root. If this were not done vegetation would continue, and sugar would be lost. The pitch-fork (quere, dung-fork) is used by some instead of the spade in digging up the beet when the soil is loose and sandy. If contusions are produced by knocking the roots against each other, or otherwise, fermentation ensues and sugar is lost. Rainy weather is not suitable for digging up beets that are to be put in heaps, because heat might be generated and fermentation ensue.—Time to dry if possible should be allowed them before heaping them up.—(Note D.)

Preservation.

The root must not be left long on the ground, exposed to the air and moisture. Heat and cold are both formidable enemies. If exposed to 12° or 15° of centigrade, 55° to 60° of Fahrenheit, especially in damp weather, the vinous fermentation with loss of sugar will ensue. On the other hand the beet root freezes very readily. So much so that enormous masses have been frozen with the thermometer only one degree below the freezing point. So hard do the beets freeze as to injure the instrument employed in expressing the juice, and, if to avoid the evil you attempt to thaw the root, all that was frozen of them will become black and rotten, which is so much loss. The best aired cellar is not nearly so good as a pit dug in the field where they grew, for preserving the roots. The dimensions of the pit may vary according to circumstances of any length and breadth, from two feet to ten, and in depth two feet and a half to three feet. The most convenient form is twelve feet long, and three feet wide at the bottom, and thirty inches deep. This will contain from two to three thousand weight of beets. In digging, the earth is thrown out on both sides, the roots are then filled in and heaped up above the level of the surface, and are then covered up with the earth that was thrown out. In the temperate zones, three inches of earth over head is sufficient for their protection whatever the size of the pit. The place chosen must be where water will neither come nor remain. The pit must be opened from time to time to see the state of the roots, and such as are unsound may be removed. A single spoiled root might spoil all the rest. The roots ought not to be covered with straw under the earth, as that serves to rot and spoil them. Clayey or other than sandy ground is best for the pit, as being more impenetrable to damp.

Of growing Seed.

As the beet is a biennial plant, it is only the second year that it produces seed. It is at the season of harvest that the roots are chosen which are next year to be transplanted for seed. They must be, 1st, healthy; 2d, of medium size, length and thickness; 3d, not forked, that is most important; and 4th, perfectly white. The leaves and a part of the stalk are cut off, taking care not to cut down to the collar or neck. The roots are then kept in sand until spring. At the end of March, or the first fortnight in April, they are replanted up to the neck two or three feet apart; at this distance, having abundant nourishment, they will be fully developed; the stalks will rise from 3 to 5 feet, and must therefore be propped. When the seed is ripe, which will be about the middle of September, the stalks are cut, gathered and tied into bundles, and hung up in an airy place. When dry the seed is removed by hand, taking care to leave those at the end of the stalk, they being generally not quite ripe. Some thrash the middle like corn, but this is not so well. The gathered seed is laid out on a cloth exposed to the sun, or may be dried by a stove. When dried it is winnowed, put into sacks, and kept in a dry place, secure from mice, &c. Each root should give from 5 to 6 ounces of good seed.

Advice to Beet-root growers.

Do not sow beets in fresh cleared lands, where wood has grown for two years at least; such ground has been proved to be unsuitable. Do not raise beets on the same ground for two years in succession, although otherwise suitable; many farmers in France pursue the following rotation: the first year wheat, the second beets, the third clover, and so on, wheat, beets and clover in succession. When beets are to follow wheat, the ground should have two deep ploughings, as it must be so hard as to require it. Some plant potatoes the first year, beets the second, and clover the third. In this case two ploughings are not so necessary—some again sow beets the first year, beets the second, oats or wheat the third, and clover the fourth. There is, however, a sugar maker at Arras, who has grown beets on the same ground for fifteen successive years, taking care only every year to change the manure or dressing; this, however, is not a practice to be followed—certain growers have been ruined by it.

It is known that the beet may degenerate, and that the seed of the white plant may produce red or yellow roots; this tendency may be checked by changing the soil from clayey to sandy, and the contrary.

Let your seed be not more than four or five years old.

Sow and reap as early as possible.

NOTES BY AN AMERICAN FARMER.

(A)—By "calcareous soils" is meant soils with a substratum of chalk, and having a visible portion of it intermixed with the surface soil. The writer of these notes, although familiar with such soils in Europe has never seen or heard of them in any portion of the United States. What are here called limestone soils are not supposed to be unfavorable to the beet root, but the contrary.

(B)—The first manner of sowing is most certainly not worthy of imitation.

The second or broad-cast manner is objection-

able, inasmuch as it is impossible, without an immense deal of labor, to keep the ground free from weeds, and it is nearly impracticable to keep it in good tilth, both of which are essential to a good crop of beets.

The third plan, that of depositing the seed one by one, by hand, in the places they ought to occupy, although recommended as at once simple and economical, is objectionable, because if any of the seed should fail to germinate, there will be vacancies of plants which will cause a loss of crop much greater than the value of the extra seed, which is required when the fourth manner is adopted. If more seed were used, and that distributed in the rows so as to ensure an even planting, this plan would be a good one for those who have not a machine for drilling.

The plan of drilling is decidedly preferable to all others: by it a uniform planting may, in most cases, be obtained; the weeds may be kept down, and the soil maintained in good tilth (open) with the least possible manual labor, and the process of harvesting is much facilitated.

(C)—Here in the original is an imperfect description of a kind of horse-hoe, which is used for cultivating the intervals to within about $1\frac{1}{2}$ to 2 inches of the plants. The most improved cultivators of the present day would answer remarkably well for this purpose in our climate; if arranged in such a manner as that the outside hoes should not throw the soil on the plants, but rather from them.

(D)—In harvesting a good plan is to run along the rows with a plough, without coulter or mould board, but with a sharp share. Let the plough go so near the rows and at such a depth as to cut only the smallest part of the tap-roots, and slightly loosen the plants, when they may readily be pulled by hand, and, whilst in the hand, the tops and dirt may be removed with a heavy knife in a much more workmanlike manner than they can be chopped off with a spade whilst laying on the ground. (This is an economical manner of taking up rutabaga, and not liable to any objections that the writer is aware of; he has seen it in practice.)

The caution against bruising the beet-roots ought to be observed. Care in taking them up tends much to their safe keeping.

A friend has mentioned a plan of growing beet-roots that has been adopted by a distinguished farmer in Chester Co. Pa. which is said to have been very successful—They are grown in alternate rows with corn; the corn being planted in rows six feet apart, a row of beets intervenes—the corn crop is very little if at all diminished—the labor is not much increased, and a very good crop of beets is obtained; the shade of the corn is supposed to be favorable to the beet. This plan may be worthy of a trial by those who have not prepared a piece of ground for roots, and who are anxious to have good winter food for their cattle, and not disposed to enter upon the manufacture of sugar.

Long Island Oxen.—The L. I. Star of Monday says, two fat oxen decorated with ribbons, were drummed through the town of Hempstead on Wednesday last, one of them estimated to weigh 1500 pounds. One of them was raised by the widow Hicks, of North Hempstead. They were owned by Mr. Angevine, of Hempstead, butcher.

PIGS.

If there be any thing in which perverseness is humorously provoking, it is the stubborn wrong-headedness of a thorough-paced pig. He that drives a pig ought to be blessed with even more patience than Job, for surely none other could drive one to market. Imagine yourself at a cross road, with a whip in one hand, and a pig at the extreme end of a long rope, for he will have the whole length of his tether. If you direct the head of your charge, by directing his tail due north, he looks toward the road as if conscious that it led to that "undistinguishable bourne from whence no traveller returns;" he cannot oblige you, so turns round and makes with all his legs for the south—If neither of these ways are agreeable, he has no objection to turning entirely round and retracing his steps to the sty of his nativity; and if you cannot decide on this proposition immediately, he is polite enough to persist in waiting your leisure, and sticks to his point as immovable as a rusted weathercock; at last he veers round and round like the boxing hand of a compass to all points, but keeps to none, neither making way forward, sideward or backward. Your patience now begins to fail, and you apply the whip in the most persuasive manner possible; he squeaks very penitently, and utters his shrill lament till all the passengers stop their ears with their fingers, and housekeepers shut down their windows. He seems to regret his incapacity to please you, let him turn whichever way he will; but relaxes nothing of his perverseness. You then twist his thin and useless tail round your thumb, till you have screwed it as tight as if it were a tourniquet, and endeavor to urge him forward by that last resource of defeated pig-drivers. His counter-tenor squeak is only the more piercing and pathetic; but he is as undecidedly decided as ever as to the tenor of his way. And now, stunned by his shrieks you loose his tail, and pull resolutely at the sting which keeps him prisoner by the leg; he was at that moment advancing almost twice his own length on the road you wished him to take, but that pull is construed into a direct command to stand still, and once more he is as "fixed as monumental marble." You ply the whip all his sides look like a tally of the number of lashes he has received; but he seems to think whipping an unmerited compliment. You pull the leg, twist the tail, and flog the flank, for half an hour longer; he squeaks up and down the whole compass of the chromatic scale, till every note is run through, and your head feels as if harp swords were thrusting through both ears. Meanwhile the blackguard boys swarm around you like bees at a gathering; one volunteers a stick with a nail in it, a second a stone, a third pushes his cap in the face of your charge; and the rest raise the exulting halloo, or keep up the roaring laugh. These insults put your pig on his mettle, and he either bolts in between their legs promiscuously, and tumbles them down one after another, or else, selecting some newly breached uppin in particular, he flings the bread and butter noucher over his back into the mud. The bystanders laugh louder than ever—seizing the porky perplexity by the hind legs, you fling him over your shoulder, and sweat all the way to the market town, while your tender charge is making the streets vocal with one long continued shriek.—*London paper.*

[From the Centreville Times.]

AGRICULTURAL ESSAY—No. 1.

MR. SPENCER—In compliance with the request to your friends, to write occasional essays on such topics as they might think would be useful to the readers of your paper, I propose to furnish a series of plain, practical hints upon that ancient, noble, and indispensable vocation, Agriculture.—My design is to avoid the show of learning, and the high-sounding technicality in which it is too often obscured, and embody my thoughts, in such familiar forms as may be easily recognised. I may incur the charge of inelegance in composition from the hypercritic, but shall not be rejected I hope by the good sense of the substantial farmers of our county. The following essay is introductory to the series. The rest shall be forthcoming in good time. AGRARIUS.

AGRICULTURE.

The cultivation of the earth is necessary to the existence of civilized man.—From it are derived his food and clothing, as well as the luxuries that supply his table and gratify his senses. Its history it is coeval with the earth. Adam was placed in the garden of Paradise, to till it—to prune the redundant limbs from the beautiful fruit bearing trees and furnish moisture to the sweet and lovely flowers, when there might be a deficiency of dew or rain. The oldest nations, whose records come down thro' every successive age of the world to our own day delighted in the culture of the soil.—The Romans famed in ancient history, for literature, science and the art of war, were eminently fond of agriculture. Some of the most distinguished warriors, that led their armies to battle, and returned in triumph after conquering their foes, were taken from guiding the plough or handling some other implement of husbandry. Their attachment to their former mode of life was so strong, that we find them resuming it as soon as they were released from military duty. I will also direct your attention to ancient Greece. The land of Poetry and Song—of heroes and Patriots, of eloquence and refinement in all that was connected with learning.—Even there we find philosophers and statesmen, returning from the contention of the schools and the wranglings of politicians, to the shade and quiet of the country. Their retreat, however, was not spent in literary indolence or sensual indulgence, but in the arduous labours of the field. Some were occupied in cultivating rare and exquisite flowers of the useful and pleasant vegetable which constituted a part of their food. Others directed the care to the production of the different kinds of grain, that entered largely into the composition of their bread. And others tended the different species of cattle, which were used as sacrifices to their imaginary gods, or as portions of their sustenance. Ignorance and agriculture, were not then, neither are they now necessarily allied—unfortunately for farmers, an opinion is too prevalent in the community, that they are ignorant and clownish. We admit, that they are generally unacquainted with those branches of science which are usually pursued by professional men, and that they are unskilled in the conventional forms of politeness practised by the exquisites in the fashionable world. But we fearlessly assert that they are not deficient in solid, practical good sense, nor in

primitive and genuine good breeding—moreover there are many farmers who have had all the advantages of a liberal and scientific education, who shine as well in the halls of our national legislature as in those literary associations of which they are members. Farmers your vocation is noble. It has the commendation of God—The sanction of the wisest and best men of antiquity. And the protection and countenance of the most distinguished men of modern days. Our Washington was a farmer—a plain, unassuming farmer. And yet the world has never seen another human being, sustaining the weight of government with such dignity—or retiring with more intense joy to the calm and happiness of his own fireside. Your vocation is rich in blessings. Although your gold and silver may not increase as rapidly as the gains of the merchant or speculator, yet the enjoyments springing up around your own hearth-stones are pure and permanent. The distracting anxiety that thrills thro' the breast of the merchant, when he has large ventures at sea, and the storms threaten to engulf his vessels in the waves, never enters your bosoms.—You may sometimes watch with intense concern the dark rain-clouds as they float along the summer sky, when your grain fields are sere and dusty. But hope whispers “all will be well,” while revelation encourages the voice of hope, and says in tones of love, that seed time and harvest shall succeed each other, unfailingly, as long as the world stands. Your joys are permanent, depending on the benevolence of God and not on the caprice of men. Virgil the celebrated heathen poet, has this view of the subject, when he exclaims with rapture, surely, “God has made these blessings for us.” I have carefully examined the lives of many individuals, pursuing divers occupations, and have been compelled to the conclusion, that the industrious, managing farmer, whose property is not cumbered with debt, and who rightly appreciates his vocation, can never rationally complain of his allotment. He has fewer temptations to the current vices of the times, than most men. No one can deprive him of happiness, as it is in his own custody. His fields supply his table with wholesome and delicious bread, his folds with pleasant meats—and his orchards and gardens with fruits and vegetables. His food and raiment are sure. By proper economy he can lay up a surplusage which can be applied to lighten the burden of old age when he is incapable of constant manual labor. He can indulge in such innocent amusement, as may tend to invigorate his body and improve his mind. In fact the whole course of his life results in this effect. His usual bodily exercise promotes health, while it strengthens his intellect. He has moments of leisure, for looking over the pages of history; examining the political institutions of his country—reading the literary productions of the day; revelling in the regions of poetry, and studying that incomparable Book the Bible. What more can we ask of a bountiful providence.—Surely of us it may be said, there is no people like this people.

In order to enlarge and perpetuate our blessings we must avail ourselves of the lessons of experience. Many of the agricultural periodicals teem with good advice, but as their circulation in this county is not very extensive, I propose to condense such information as I have gathered from

them and from intercourse with old and experienced farmers, into short practical essays. In my next I propose to write about indifferent soils and the manures, or substances best adapted to their improvement—and shall continue to write as I have leisure and inclination.

[From the Farmers' Cabinet.]
INDIAN CORN.

The following communication was read to the Philadelphia Agricultural Society, February 21, 1838, and directed to be published in the Farmers' Cabinet.

Of all the kinds of grain raised in the United States, Indian corn is the most valuable, taking into view the quantity and the price per bushel, and it has been a subject of much solicitude for some years past, that the early frosts have done such extensive injury to it; diminishing the crops and otherwise rendering it of much less value for feeding stock. In the South, the seasons are sufficiently long and warm to mature it, but in the middle and northern states this is not the case, and consequently, our farmers have been directing their attention to other varieties than those heretofore cultivated, that will ripen earlier and bear planting at a later period. Of the kinds experimented upon with this view none has succeeded so well as the variety called the “Dutton Corn.” This answers the purpose completely, as it may be planted the latter part of May, and even as late as the first of June, and cut off the first week in September fully ripe. It is a hard corn, deeply yellow, grains set very close, generally twelve rows, sometimes more, and never eight. It is remarkably heavy and believed to be more sweet and nutritious than the ordinary kind of corn usually raised in our country. The stalk is small and it shades the ground less than other kinds, and of course admits of being planted much nearer together. A specimen of the ears has been deposited at the office of the Farmers' Cabinet, so that those who desire to see it may have an opportunity of inspecting it, and thereby prevent their being deceived; as much of the small eight rowed yellow northern corn, which also ripens early but not so soon as the Dutton, has been sold some years past for the real invaluable “Dutton corn.” This in some instances has produced much disappointment and loss, but perhaps the vendors of it, have themselves been deceived and no fraud intended.

Isaac Roberts, near Springmill, in Montgomery county, raised an acre and a half of it last year, which produced about seventy-five bushels without a soft ear. It was cut off the first week in September, and the ground ploughed and sowed with winter grain.

The rats and mice which are admitted to be good judges of the qualities of grain, have displayed a very decided preference for the Dutton corn, where that and the common kind have been equally accessible to them. A. B.

[From the N. E. Farmer.]
INDIAN WHEAT.

This is the name applied to a grain, which recently has been brought into notice by its extraordinary productiveness, and of which as inquiries are constantly made of us, we propose to give what information we possess.

The plant referred to is, without question, the Tartarian Buck-wheat; or as it is called by others, the Siberian Buck-wheat. It belongs to the tribe of the *Polgonum* from its many sides; and its name Buck-wheat is supposed to be a corruption of Beech-wheat from the resemblance of its seeds to the Beech Mast. The cultivation of this particular kind of Buck-wheat is not new in this country nor in this state. The recent excitement in regard to it seems to have been accidental; its value perhaps being more particularly brought into view by the failure of common Wheat through the grain worm and by rust; and the loss of the Indian Corn by the inclemency of the seasons. This particular kind has been several years cultivated in Pennsylvania; and a beautiful sample of it was brought to us from the north-western parts of that state three years since; but without any name by which to designate it, or any account of its cultivation or its yield. It has been likewise for several years cultivated successfully in Hampshire County in this State. It was said to have been introduced into Germany a century ago; and within a few years has been cultivated in Great Britain. It is supposed to possess considerable advantages over the kind that has been usually cultivated, not only because it is considerably heavier in the grain, but is generally considered more palatable. It is said to do well even in the poorest soils; is not affected by cold; and being more disposed to branch out and spread its stalks, requires not so much seed for its cultivation as the common kind of buck-wheat. Some persons, who have cultivated it, demur to the fact of its being more productive; and complain of its flour as being blackish and rather bitter. These differences can only be reconciled by supposing differences in the modes of cultivation; in the nature of the soils, upon which it grows; in the kind of manure employed; in the manner of its being cured; and in the manufacture of the bread itself.

With a view to give the best information we have been able to obtain of its cultivation and history here, we subjoin some extracts from letters received in answer to our inquiries.

"Of its origin, says one of our correspondents, I know nothing; but report says some years since a traveller fed his horse at a public house, in a town a few miles north of us (Hartland, Vt.,) and that after he left, a few grains were found in the trough in some respects resembling buck-wheat; and that these being sown, produced the grain now known by the name of Indian Wheat. It produced 30 or 40 bushels to the acre on ordinary land, such as will not bear a good crop of any other grain; and sometimes yields 75 to 100 bushels to the acre."

"Our farmers differ much as to the quantity of seed that should be sown. Some put on a bushel, some not more than eight quarts. I should say from 16 to 25 quarts. It may be sown any time till July. It requires from two to three months to come to maturity; if sown too early it will be in danger from late frosts. About the middle of June is the usual time of sowing here."

"The land should not be too rich. On common land without manure it succeeds well. Poor sandy land that is not worth cultivating in any other grain produces a fair crop. The ground should be prepared as for rye or oats. If the

land be poor, it should be left as smooth as possible that the grain may be cradled low; as it generally branches out near the ground, especially when sowed thinly or on poor land. The average weight is 48 to 50 lbs. per bushel. It is used for various kinds of bread stuffs; also for feeding hogs, horses, cows, &c. When floured as it should be, it makes good bread if eaten when new, whether warm or cold. It will mix well with rye and Indian meal for coarse bread.—It is thought by some to be equal to corn for fattening hogs, bushel for bushel; but I think this is a mistake. I have known no experiments to test its value. It is fed to horses by some persons, but probably oats by weight are preferable. On the whole I think it a very valuable kind of grain, especially in places where the land is naturally poor or has become exhausted by long continued cultivation."

We have another letter before us, which states: "I suppose the right name of this grain to be Indian-wheat. It has been cultivated a number of years in Vermont, and in some parts of New York; but where it originally came from, I cannot tell. I broke up last year about 2 1-8 acres of a piece of pasture land; sowed one bushel and two quarts, and obtained one hundred bushels, which was the greatest yield I have heard of. It has been raised on almost all kinds of land. I sowed it last year on the 10th of June. I think it should be gathered when three fourths of the grain are ripe. It will produce from twenty to twenty-five pounds of flour per bushel. It is used as an article of food considerably in these times of scarcity, and is much used for fattening swine."

Such are the accounts we have received of the cultivation of this article of produce, which is comparatively new among us. We have been informed on authority on which we rely that it has this year yielded seventy-five bushels to the acre; but the circumstances under which this product has been obtained, have not come to our knowledge. It would be wrong to calculate upon any such amount as usual or probable. That which we have tested weighed 49 lbs. to the bushel. A farmer with whom we are acquainted, who has used it in his family, has obtained 35 lbs. of flour to a bushel of grain. A grain weighing this much, and yielding in a poor soil, without manure, even 25 or 30 bushels to the acre, must be pronounced a valuable acquisition. It is advised by some farmers to use it for horses; but one writer says, he has known it to produce a stupefying effect.—Young says, a bushel goes farther than two bushels of oats. In fattening swine it is said that eight bushels of buck-wheat will go as far as twelve bushels of barley-meal. We give these statements entirely upon the authority of others, having had very partial experience in the use of it for feeding. Buck-wheat cakes, which are almost a standing dish in Pennsylvania and Maryland, when well made, and eaten warm, are much esteemed by most people; are deemed nutritious; and have the advantage of not turning acid upon the stomach.

The plant is cultivated in many places extensively for its advantages in feeding Bees; its blossoms containing a large quantity of honey and remaining a long time open, different plants in the same field, and different parts of the same plant opening in flower at different times. One

writer says "the *haulm* of Buck-wheat is more valuable than clover if cut while in flower." It is of little value as food for animals after the seed has ripened.

One person says he has seen hogs after having eaten heartily of it become so inebriated as to be unable to walk without reeling. How far the use of it for swine would under such circumstances compromise those good men, who have signed the temperance pledge, is a nice question in casuistry, which we shall leave to them to decide. Perhaps they will construe their obligations in this matter as applying to the furnishing the means of intoxication only to human swine.

[From the National Intelligencer.]

ON THE CULTURE OF SILK.

Messrs. Gales & Seaton: Experiments in various parts of the country in planting and rearing the mulberry tree, and growing silk worms, have proved beyond a doubt that the culture of silk can be prosecuted to advantage, and may be made to become an object of national importance.

The white Mulberry tree was first introduced into Mansfield, (Conn.) about the year 1760; but little was done, however, to advance this branch of industry till after the close of the revolutionary war, when the State Legislature offered a bounty of ten shillings, lawful money, for every one hundred white mulberry trees, planted, which was to continue ten years; and three pence for every ounce of raw silk, made. This stimulated the inhabitants of Mansfield to renew and extend their exertions in this new business; and, so successfully, that in 1793, three hundred and sixty-two pounds of raw silk were made in that town alone. In 1832, the State again offered another bounty, similar to the first; and in May, 1834, this bounty was extended to the Chinese mulberry, and a company incorporated for the purpose of manufacturing silk. During the last named year Mansfield produced raw silk to the value of sixty thousand dollars. The county of Windham produces annually five tons of silk.

It has been generally supposed that the cold winters of the Eastern States would prove fatal to the mulberry, and an insurmountable obstacle to the production of silk: but it having been found, by the experience of a few enterprising individuals, to succeed well in Maine, as far east as the Kennebec, the State, in 1836, offered a bounty similar to that of Connecticut, and the people in some towns have already made considerable progress in planting the trees; and in the town of Winthrop, in producing raw silk.

The culture of silk having been found to be a profitable business, there are strong inducements to persevere.

The value of silks imported into the United States, for the year commencing 1st of October, 1835, and ending 30th of September, 1836, was as follows, viz.

Free of duty.

Silks, other than India, lace veils, shawls, &c.	974,857
Silk, other manufactures of	19,357,039
<i>Paying duties ad valorem.</i>	
Silks, from India, China, &c.	
piece goods,	1,747,106
Silk, sewing	83,542
Do do from other places	699,633

Silk, raw	37,507	22,899,684
Exclusive of manufactures of silk and worsted, valued at \$3,171,023.		
Value of silks exported during the same period, free of duty.		
Silks, other than India, lace veils, shawls, &c.	30,794	
Silks, other manufactures of	245,091	
Paying duties ad valorem.		
Silks, from India, China, &c.		
piece goods,	448,550	
Silk, sewing	8,446	
Silk, other manufactures of	26,311	
Silk, from other places, sewing	1,630	
Silk lace, veils, &c.	1,908	762,730

Amount retained for home use, \$22,136,954

This demand, which is increasing, probably, in a direct ratio to the increase of wealth and population, ought to be supplied by domestic culture and manufacture. The soil and climate of the District of Columbia is well adapted for growing the mulberry; and surely its inhabitants ought not to be behind those of the cold latitudes of the North in supplying their proportion of this demand. It is to be hoped that the General Government will imitate the example of the States, and stimulate them to embark in a business which promises to become of national importance, by offering suitable encouragement. Silk may yet become a staple production of some sections of the country, as cotton has of the South. An American vessel was seized in Liverpool, in 1784, for having on board eight bales of cotton, as it was then supposed to be impossible that they could be the growth of this country. Now there are more than 600,000 bales of the raw material shipped to Liverpool annually, and 300,000 or 400,000 bales to other parts of Europe, besides supplying the home market for our own extensive manufactures. Some things can and should be done as well as others. P.

[From the Baltimore Patriot.]

WINE MAKING IN THE UNITED STATES.

The following, extracted from the Southern Agriculturist of October, ought to be generally disseminated. It shows what can be done, and may induce others to try to do likewise. Mr. Herbemont has been making wine for many years—15 or 20 probably; and the writer of this has frequently had the pleasure of tasting its good qualities. I will not say it is equal to the best Madeira, but I do say I like it much better, as it is not *branded*. The kind of grape he principally cultivates for his best wine is called the "Herbemont Madeira."

Yours, &c.,

G. B. S.

Extracted from an article in the October number of the Southern Agriculturist.

Columbia, S. C., Sept. 9, 1837.

By way of encouragement, I must tell you that I have this very day terminated my vintage, except a few odd grapes, which I shall gather next week, which will add 50 or 60 gallons of wine to that already made. I made at my farm 750 gallons, and in my garden 528 gallons. This last is a most enormous crop; for the vines that produced that quantity are on one sixth part of an acre.

This is, therefore, at the rate of 3168 gallons to the acre, which is perhaps a greater crop than ever was made any where else; at least I never have seen any account of any more than 2000 gallons, and that is exceedingly rare. I have, moreover, reasons to believe that the wine will be of a very good quality. The produce of two of the vines in my garden is so great, that if I had not the most respectable witnesses of the fact, I should hesitate to name it. They produced one hundred and thirty gallons of wine, and even more.

Very respectfully,

N. HERBEMONT.

The number of pairs of shoes manufactured annually in Worcester county, Mass is 1,257,331; boots, 425,310; valued at \$1,791,289—giving employment to 4,205 males, and 2,142 females.

Amongst the novelties of the day, in the way of mechanical invention, a New Bee Hive is now prominent. A model of it is being exhibited at the Capitol, and justly attracts much curiosity. Apart from the ingenuity of the affair, and its utility for producing honey in the purest form, the inventor seems to have had a spice of genuine humanity in his composition. The bees work in glass vessels, and the honey can be removed from their laboratory without the cruelty of destroying them, as is the practice with the common hive.—*Richmond Whig*.

Improvement of Cattle in Warren, (Kentucky).
—John Strader, Jr. of Mansfield, weighed his short horned Durham bull *Snap*, on the Port Colden Hay Scales, on Monday the 8th inst., (the day that he was two years old,) and he weighed 1600 pounds. At the same time one of our ordinary fat bullocks of the usual breed weighed 1190 pounds. Mr. Strader has lately turned his attention to improving his stock, and has raised *Snap* from a calf, and has cows now on hand that would do credit to the *Powellton* stock.—*Belvidere Apollo*.

MORUS MULTICAULIS TREES.

The subscriber has for sale 20,000 first-rate trees of the *Morus Multicaulis*, from 3½ to 8 feet high, now ready for delivery. The prices are, for trees 3½ to 4 feet high, \$25 per 100; 4 to 6 feet high, \$30 per 100; 6 to 8 feet high, \$37 50 per 100; or for all sizes mixed, \$30 per 100. Cuttings \$40 per 1,000. Orders will be attended to with the greatest care, and the trees forwarded by the first conveyance to persons at a distance who send their orders by mail.

I am also prepared to contract for the supply of any quantity of trees, deliverable either next fall or the ensuing spring, upon the most favorable terms, having made arrangements for the cultivation of a large number the coming season. The trees to be delivered next fall will have all the side branches on them, unless specially agreed upon to the contrary; so that persons purchasing them will have the advantage of using them as cuttings for immediate propagation.
mar 20
GIDEON B. SMITH,
Baltimore.

CONTENTS OF THIS NUMBER.

Notice of a letter and communication from James Ronaldson, Esq. on the Sugar Beet culture—old mortar as a manure—Gleanings by the editor of the Farmer and Gardener—treatise on the culture of the Sugar Beet—dissertation of pigs—essay by Agrarius—notice of the Dutton Corn—Indian Wheat—culture of Silk—wine making in the United States—a new bee hive—improvement of cattle—advertisements, &c.

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old Nortown Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr dam, (Layd Sarah) by Pilot; gr gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcerer, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street near Pratt, three doors in the rear of Dinsmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT, BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; BUCKWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS, WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by John T. Durning & Co. at their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinsmore & Kyle's N. B. Fruit and Ornamental Trees furnished to order by giving timely notice—double Dahlia and other bulbous roots, together with flower Seed of superior kinds, furnished to order. feb 13

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	70	72
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana — Alabama	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	7 87	8 00
" wagon price,	"	7 50	7 75
City Mills, super.....	"	7 80	8 00
" extra	"	8 25	8 37
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhd.	hhd.	19 00	
do. in bbls.	bbl.	4 00	
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 25
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.		7 50
Slaughtered,.....	"	6 25	7 00
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	5 50	
Ground,.....	barrel.	1 50	scarce
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,....	"	8 00	10 00
" good yellow,....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
ground leaf, ..	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 65	1 70
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	33	
" in hhd.....	"	34	
" wagon price,.....	"		30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 50	
To Wheeling, ..	"	1 75	
Wool, Prime & Saxon Fleeces, ..	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this all, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured...	pound.	13	13½
Shoulders,.... do.....	"	11	
Middlings,.... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par		
Branch at Baltimore,.....	do		
Other Branches,.....	do		
MARYLAND.			
Banks in Baltimore,.....	par		
Hagerstown,.....	¾		
Frederick,.....	do		
Westminster,.....	do		
Farmers' Bank of Mary'd, do	do		
Do. payable at Easton,.....	do		
Salisbury,.....	1 per ct. dis.		
Cumberland,.....	par		
Millington,.....	do		
DISTRICT.			
Washington,.....			
Georgetown,.....	Banks, ½ p.c.		
Alexandria,.....			
PENNSYLVANIA.			
Philadelphia,.....	par		
Chambersburg,.....	½		
Gettysburg,.....	do		
Pittsburg,.....	2½		
York,.....	½		
Other Pennsylvania Bks. 2			
Delaware [under \$5]....	4		
Do. [over 5].....	1½		
Michigan Banks,.....	10		
Canadian do.....	10		
VIRGINIA.			
Farmers Bank of Virgi. 1½	1½		
Bank of Virginia,.....	do		
Branch at Fredericksburg, 1½	1½		
Petersburg,.....	1½		
Norfolk,.....	1½		
Winchester,.....	1		
Lynchburg,.....	1½		
Danville,.....	do		
Bank of the Valley,.....	1		
Branch at Romney,....	1		
Do. Charlestown,.....	1		
Do. Leesburg,.....	1½		
Wheeling Banks,....	3		
Ohio Banks, generally 6a7	6a7		
New Jersey Banks gen. 5	5		
New York City,.....	par		
New York State,....	3a4		
Massachusetts,.....	3a3½		
Connecticut,.....	3a3½		
New Hampshire,....	3a3½		
Maine,.....	3a3½		
Rhode Island,.....	3a3½		
North Carolina,....	5		
South Carolina,....	6a7		
Georgia,.....	do		
New Orleans,.....	12		

FARMERS' REPOSITORY

OF AGRICULTURAL IMPLEMENTS AND EASTMAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobaccoists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as, usual. Elliott's Horizontal Wheat Fans, and Fox & Bolland's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a

large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On hand, a few Patent Lime Spreaders, Horse Powers, &c. &c. Also just received, a fresh supply of Landreth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,

Pratt street, Baltimore,

feb 20

Between Charles & Hanover sts

ROBERT SINCLAIR, Jr. & CO.

Light street, near Pratt street Wharf,

OFFER FOR SALE, an extensive assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and SEEDS, comprising all that are required to stock the most extensive plantation. Particular attention is directed towards the manufacturing department, where the most competent workmen are employed and durable materials used.

The assortment of PLOUGHS is large and various, among which are the Double mould board, Sub-soil, Self-sharpening, Improved Davis, &c.

WHEAT FANS—Com. Dutch, Crank Shake, and Watkins' Patent.

CORN SHELLERS—For manual and horse power, warranted to shell 2 a 700 bushels of corn per day.

CORN AND COB CRUSHERS—For breaking the cob in suitable size for feeding stock.

CYLINDRICAL STRAW CUTTERS—of these there are several sizes. The late improvements made have rendered them the most perfect and effective Straw Cutters in the country.

THRASHING MACHINES and Horse Powers.

CULTIVATORS, for cultivating Corn, Tobacco, &c.

DRILL and SOWING MACHINES, for drilling vegetable and grass Seeds.

VEGETABLE CUTTERS, for slicing turnips, mangel wurtzel, pumpkins, &c.

HARROWS—Expanding, Com. Square and Diamond shape.

GREEN'S PATENT and common DUTCH STRAW CUTTERS.

ALSO,

Grain Cradles and Grass Sneaths, with warranted Scythes attached, Sickles, Scythe Stones, Grain and Hay Rakes, Hay and Manure Forks, with 2 a 6 prongs, Ox Yokes, Grubbing Hoes, Docking Irons, Ames' Spades and Shovels, cast steel Axes, Bramble Hooks, Hay Knives, Box, Pruning and Sheep Shears, Grass Hooks, Pruning Knives, Children's Spades, and various other Garden Tools.

Merchants wishing to purchase Ploughs and Castings to sell again, will find it to their interest to examine our stock, being the largest and most general assortment in this city, and for sale on liberal terms.

GARDEN & FIELD SEEDS—Just received from Europe, and from the Clairmont Seed Gardens near this city, an extensive assortment of Garden and European Field Seeds, warranted fresh and genuine, viz.

French Sugar Beet Seed, Mangle Wortzel, Ruta Baga, superior Beet and Radish Seeds, early and late Cabbage Seed, 30 kinds early and late Peas, bunch and pole Beans, Hybrid and other Turnip Seeds, Cauliflower and Broccoli; Scotch Kale, Parsnip, Carrot, Cucumber, Lettuce, Onion, Summer and winter Squash, Melons, Leek, Celery, Ockra, Salsafy Cress, superior assortment of Flower Seeds, Herb Seeds, etc. etc.

FIELD SEEDS—English and Italian Ray Grass, Trefoil, Burnet, St. Foin, Lucerne, white and red Clover, green and blue Grass, early Potatoes, Gama Grass Roots, Baden and Mercer Corn, Italian and Tuscany Wheat, Timothy, Herds and Orchard Grass, Millet, etc.

TREES AND PLANTS supplied at the shortest notice from the Clairmont Nurseries, near this city.

Wanted, prime lots Seed, Grain and Grass Seed.

march 13

6t

The office of the "Farmer and Gardener" is removed to the cor. Baltimore & North sts.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 48.

BALTIMORE, MD. MARCH 27, 1838.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. W. corner of
Baltimore and North streets, over the Patriot office, at two
DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

BALTIMORE: TUESDAY, MARCH 27, 1838.

We were invited a few days since to witness
the weighing of three fine Durhams, a part of Mr.
Geo. Beltzhooover's herd, and record their weights
for the information of our readers.

The *first* was a large strawberry roan cow, 4
years old, a full bred Durham, called Hester; she
weighed 1,500 lbs.; was purchased by Mr. Beltz-
hooover of Mr. Seaman of Long Island, N. York,
and is an animal of fine form and excellent points.

The *second* was a full bred Durham heifer, one
year old the day on which she was weighed; she
is a mottled red and white, possessing in an emi-
nent degree, all those points for which her race
is so distinguished, and weighed 900 lbs.; her
sire is Montezuma, her dam a full bred Durham
cow, both imported by Rezin D. Shepherd, Esq.

The *third* was a heifer calf, white and red pied,
3 months 17 days old, one of the most beautiful
animals we ever beheld; she weighed 450 lbs.—
her sire is *Hamlet*, a full bred Durham owned by
Mr. Beltzhooover, and raised by Mr. Seaman, of
Long Island, N. Y., out of Favorite, a full bred
Durham, also imported by Rezin D. Shepherd,
esq. For this heifer Mr. B. has refused \$300.

There was a very large number of persons pre-
sent at the weighing of these remarkable beasts,
among whom there was but one feeling—that of
admiration,—and we think that no one who may
see them, will hesitate a moment in arriving at
the opinion of their being a great acquisition to our
country, as affording a most eligible cross for the
improvement of our native breeds.

We think it a most happy circumstance for our
enterprising townsman, Mr. Beltzhooover, that he
has been enabled to avail himself of the services
of Mr. John Hussey, who is one of the best *cow-
herds* in the country, as is attested by the admir-
able keep of the herd intrusted to his charge. To
competency and skill he adds a *passion* for *cattle*,
which at once renders his labors a source of plea-
sure and delight, and gives a guarant that every

thing which kindness and intelligence can effect
will be done for them.

MARYLAND AND ENCOURAGEMENT TO AGRICULTURE.

We regret to learn that the bill reported by Mr.
Roberts, of Queen Anne's county, in the legisla-
ture of Maryland, for the encouragement of agri-
culture, generally, as well as the bill reported by
the Committee on Agriculture, for the encourage-
ment of the silk culture, have both been rejected
in the House of Delegates. The first bill author-
ized contributions from the state treasury to such
counties as might form agricultural societies, with
a view of contributing towards such funds as might
be made by the individual subscription of their
members, to be disposed of as premiums, while the
last provided bounties to be given to the growers
of the *Morus Multicaulis*, and to those who raised
and reeled silks. The objects of both these bills
we hold as being of the very first importance to
the prosperity of the state, and for the life of us
we cannot conceive any good and sufficient reason
for their rejection. We have heard it alledged,
that the embarrassed condition of the finances
of the state was most successfully urged against
them; but this we know should not have afford-
ed a justifiable reason for the defeat of measures
pregnant with so much prospective good; nor
should the amount which would have been requir-
ed to meet the expenditures under them, been per-
mitted to weigh a feather in the scale of benefits,
they were calculated to have conferred upon the
agricultural interests of the state.

We are among those who look upon every dol-
lar expended for objects of internal improvement,
or for the melioration and advancement of the a-
griculture of a state, as so much invested with a
positive certainty of its being returned with com-
pound interest. The statesman, whose vote for
canals, rail-roads, or any other medium for faci-
litating travel or transportation, is influenced by
the dividend likely to enure to the state, in our o-
pinion, acts upon principles which have no affinity
with those enlarged and comprehensive views
which should obtain, and by which he should be
governed in his course of legislation. What is the
loss to the treasury, even though the investment
brings but a small, or no annual return of inter-

est, compared with that great sum of benefits which
always flow to the community from such improve-
ments? We maintain that such considerations
should never be taken into the calculation at all,
and that, whether one per cent. or six be realized,
the state is more than compensated by the increas-
ed sources of wealth that are thus opened to her
people.

It was remarked to De Witt Clinton, by a cau-
tious politician, that his projection and advocacy
of the New York canals, would destroy his popu-
larity, and ruin the state; and what was his an-
swer? I am aware that *politicians* may seize hold
of the sums already appropriated for the construc-
tion of those works, and those which may be ne-
cessary to complete them, to injure me with the
people; but sir, no statesman who has a mind suf-
ficiently comprehensive to foresee and understand
the benefits to result from them, will dare to con-
demn me; for those benefits are as plain to my
sight as the light of the noon-day's sun. And with
respect to any *ruin* to the state likely to grow
out of them, let me assure you, that no one whose
mind is not stultified by the grossest ignorance,
could entertain such a thought. Ruin to the state!
Is the opening to our metropolis, the countless
treasures of the west—is the increasing the value
of our property, landed, personal and mixed, a hun-
dred fold, calculated to visit us with ruin? Let
our public works be once completed, and you will
see the forests fall before the axe of the woodman,
and villages, towns and cities, spring up as if by
magic. Lands, which are now wholly unavaila-
ble, will receive an appreciation of value not now
dreamt of. Are these the sources of ruin which
you would foretel? If they be, then you are a
prophet. My popularity may be undermined for
a few years; it may be sacrificed; but I look to
posterity for my reward. Nay, though the course
I now pursue may consign me to private life, I
know the people too well to harbor the thought
that they can be made to ostracise me. I am con-
fident that I shall live to see that wholesome re-
action prevailing in the public mind, that will do
me justice. And sure enough he did live, not on-
ly to realize what his prophetic mind foretold, but
to see those very villages, towns and cities, rear-
ing their heads along the line of the canals, and to
behold a rise in the value of property which cast

a blush of shame on the minds of those who had decried the blessings which his far seeing judgment had promised.

Before we close this article, we must be permitted to remark, that we look upon the defeat of those bills as being among the most unfortunate incidents of the present session of our legislature. The *first* was calculated by its influence to ensure the organization of agricultural societies, in every county in the state, and to have incited a spirit which would not have failed to exercise the happiest effects upon the interests of general husbandry; while the operation of the *second*, was calculated to promote a feeling in behalf of a culture, which requires nothing but the fostering hand of government to make it one of the most profitable branches of industry known to our state. The argument which we understand was used against the adoption of the policy of bounties, was, that it would tend to excite undue attention to some one product, to the injury of all others, and we must be indulged in the remark, that we look upon it as being unsound as in theory as it is without the shadow of experience to sustain it. All experience of every nation of the earth, go to contradict the position, and to affirm its converse as the true theory. It is true, that men of sagacity and enterprise will pursue that calling which promises to be most fruitful of pecuniary benefits; but, in a country like ours, of mixed husbandry, it is not to be presumed for a moment, that the effect of limited bounties could operate to make men neglect all other products for that one which might chance to be the object of a state bounty, because the production of any particular product of the soil, is always regulated by *demand*, and the certainty of profitable reward; both of which incitements would cease long before an evil, so serious as the apprehended one, could possibly occur.

There is another point of view in which we look upon the rejection of the bill granting bounties to silk growers as unfortunate. It will retard for a time, if it does not repress, that generous spirit of enterprise that has seized upon our agriculturists. It will postpone to a more distant day that advancement in this branch of husbandry, which we had so fondly looked forward to. Had the legislature done as we conceive the observance of an enlightened policy would have dictated, we have no hesitation in saying, that in ten years, as many millions of dollars would have been added to the surplus products of Maryland; for her soil and climate are both most happily adapted to the silk culture, and nothing is wanting but that moral influence which *bounties* would have

exerted to give an impetus to the business that would have placed it beyond the reach of casualty.

The State is now so deeply interested in our Internal Improvements, that it would be worse than suicide to its best interests—to its lasting prosperity—to withdraw its fostering care, and such being the case, it is surely the part of wisdom to urge her citizens to the adoption of a branch of industry, which promises so much individual wealth and public good, as does the silk culture; for should the worst come, which we do not anticipate, and the people be called upon to bear the burthen of the interest of the state debt, they would then be in a condition to meet this new demand upon their resources without feeling it as an onerous exaction. If examples were wanting to illustrate the good effects arising from bounties, our legislature have them in the wisdom,—in the salutary influence—of those adopted by Maine and Massachusetts, whose blessings are so manifest as to have silenced all opposition. Is proof wanted? If it be, it is to be found in the *unanimous* vote lately given on the bill recently passed by the latter state.

The Morus Multicaulis.—The editor of this paper has several thousand of these trees that he would sell at a low price. They have all the wood they made attached to them; but owing to the lateness of their being planted, are of small size.

As to the capacity of this species of the Mulberry to withstand the winters of New Jersey, and the states south of it, he has no doubt. The experience of the last two years convince him that in *this State*, at least, no *ripened* wood will suffer from the frosts of the most *trying* winters. That of 1836, was, perhaps, as much so as any we have had for many years, being distinguished for its alternations of intense cold succeeded by thawing. During that whole winter his trees were uncovered and unheeded, on a hill-side, with a northern declension, exposed to every piercing wind from the north and west. As it will be recollected, the weather during a part of that *winter* was cold enough to freeze any thing but woman's love, and yet his *Morus Multicaulis* came through it and the succeeding one, unscathed and unharmed.

We are gratified to find, after a suspension of some months, that the *New York Farmer* has made its appearance again, and we sincerely hope its patronage will be such as to secure its continuance, as it has always been well conducted, and

is eminently calculated to promote the interests of husbandry. Its original matter as well as selections are in good taste, and shew a zeal in behalf of the cause of agriculture which should be cherished and sustained.

THE WHEAT BOUNTY IN MAINE.

It was anticipated by the papers of Maine that the quantity of wheat raised in that state the last year would have entitled the growers to the gross sum of \$150,000 in bounties. It appears, however, from the subjoined statement, that they amounted only to \$76,954 66 cents, and that the quantity of wheat raised on which the bounty was claimed, was 1,282,576 bushels. Though this be much less than was supposed, it affords a very strong argument in favor of the wisdom of the policy, which has thus suddenly developed the capacity of this young and thrifty state to raise its own breadstuffs.

Wheat in Maine.—It is stated in the N. Y. Journal of Commerce that the bounty of six cents a bushel granted by the legislature of Maine on wheat grown within that state last year amounted to \$76,954 66—consequently there must have been raised 1,282,576 bushels; and it is probable some was raised on which no bounty was paid. The bounty was distributed in the following proportions to the different Counties:

County of York,	\$1,521 29
Cumberland,	3,055 06
Lincoln,	3,209 93
Hancock,	1,784 26
Washington,	1,998 76
Kennebec,	14,407 16
Oxford,	10,416 38
Somerset,	17,490 93
Penobscot,	14,706 81
Waldo,	8,364 08

\$76,954 66

[The towns which receive the largest amount are China, which receives \$967 42—Farmington, \$962 22—Anson, \$906 79.]

Spring Wheat.—The *Caledonian* states that Mr. Horace Burroughs, of Kirby, Vt., raised 40 bushels of Spring wheat on three-fourths of an acre of land.

The editors of the *Yankee Farmer* offer a premium of \$30 for the best article on the *grain-worm*; describing its habits and a remedy against its ravages.

SILK.—The Genesee (N. Y.) Silk Company have purchased trees of the Chinese *morus multicaulis*, to the amount of \$20,000.

Mulberry Trees.—It appears by letters from France, that the great and increasing demand for the *Morus Multicaulis*, from the United States,

has produced a scarcity in France—the supply having been chiefly drawn hitherto, from that kingdom. The cultivation of the mulberry and the raising of the silkworm seem to be extending in the United States to a degree which promises to make silk one of the most important products of this country.—*Balt. Amer.*

A GOOD MOVE.

We copy with feelings of pleasure the following article from *The Marlborough Gazette*, and commend it to the perusal of every farmer and planter in the country. The measure proposed, is one of vital importance to the cause of agriculture, and we trust it will find favor not only with the citizens of Prince George's county, to whom it is addressed; but that those of every county in the country where no similar institution now exists, will take counsel from his excellent advice, and immediately form one. When we took pen in hand, it was our intention to make a few observations in support of the object of the writer; but we find on reading his article, that he has saved us that trouble, by setting forth the necessity of the plan he proposes with a propriety of thought and language that requires no aid.

From the Marlborough Gazette.

MR. WILSON:—Sir: Observing frequently of late the lively interest you take in the advocacy, and advancement of all measures which come under your notice, calculated to promote the welfare, and ensure the prosperity of the Agricultural community, amidst which your paper is, I believe, growing into increased circulation, I solicit as a Planter your editorial countenance and aid in the furtherance of an object which can but be promotive of great direct and permanent good to the cultivators of the soil of Prince George's; and indirectly beneficial to all other classes of society, whose prosperity all acknowledge to be identified with theirs; to wit: The establishment of an Agricultural Association under the name of "The Prince George's County Agricultural Society." The day has arrived when all communities of individuals labor to improve their condition by combining mental effort with physical exertion; and when art and science, developed particularly by the united talent and enterprise of intelligent merchants and ingenious mechanics, are presenting before us, in the various branches of industry in which they have engaged, improvements hitherto unexampled, and exhibiting the sure and happy results of this concentrated action. These results are increasing independence, enlarged sources of comfort, and the conscious possession of the reputation of having become useful to their fellow laborers who shall profit by their inventions.

This spirit of improvement though for a while more confined to the merchant and mechanic, we congratulate ourselves is beginning to pervade "the bone and sinew" of our people, the tillers of the soil in different sections of the Union, and is evidencing itself in the association of Farmers and Planters for the purpose of collecting information in regard both to the scientific and practical

departments of husbandry, and the attainment of the better descriptions of farm stock and utensils. The great State of New York has led the way in this field of agricultural improvement, and success which has attended her progress is manifest to every one who reads the statements of the increased productions of her land, and the economy with which they are applied to the maintenance of animal life, and the enlargement of animal labor, made though her valuable agricultural periodicals. —The Land-holders of Maryland in years past, stimulated by the novelty and efficiency of the American Farmer, and animated by the zeal and talent of its able conductor, for a period too directed their attention to these important matters; but they have long since lagged behind and suffered them to remain neglected.

The reason of this supineness it is needless to search out; certainly it is not that there is less room for improvement now than then; certainly not that those who are now engaged in the occupation of husbandry have less taste for its pleasures, or less desire after its game than their predecessors. Without then further inquiry as to the cause of our inactivity, let the Planter of Prince George's in view of the maxim "That it is never too late to seek or return to the path of duty," resolve themselves into an Agricultural Society, and impelled by the example of their brethren in their great sister State to which I have alluded, and by the dawn of a like intention, in some of the Counties of our own State, zealously commence to found such an Association, and press on to reap the enjoyment of the high advantages of a better digested system of cultivation, a more enriched soil, a more improved breed of stock of every description, and the introduction of time and labor-saving machines to the diminution of manual operations. The success which has for the most part crowned the individual labors of the citizens of our County strongly urge them to associated effort.

The industry of the many who have devoted themselves more exclusively to productions of the soil, has been duly rewarded; and the few who have sought to mingle recreation with rural pursuits by cultivating a taste for the Blood Horse, have added to the value of their Studs, and Prince George's can boast herself of much Racing renown won by the liberality and sportsman-like spirit of the breeders of the far-famed "Atalanta," —of the much reputed "Charles Magic," and her distinguished name-sake "Prince George," and claims those "good ones" as the offspring of her soil. May she not soon by the instrumentality of this Society (the establishment of which I would suggest, and now leave to others more competent to advocate its claims than he who proposes it,) unite the means of Art to the resources for Agricultural improvement with which Nature has so abundantly endowed her—and depending less upon the intelligence and manly enterprise of her sons, than upon the fertility of her soil, build up a reputation and renown for pre-eminence in the quality and quantity of her productions, unrivalled excellence in their cultivation—and for the most desirable breeds of every variety of live Stock.

A PLANTER.

Spring wheat may be sown up to the 20th of April.

[For the Farmer and Gardener.]

BADEN CORN.

I apprehend, Mr. Editor, that this hobby has now been ridden far enough—There is reason, we are told, in all things; even in roasting eggs. In England the rabbit-fanciers, consulting the taste of the times, and seeing that the value and the beauty of that timid and prolific creature is measured by the *length of its ears*; choosing their stock-rabbits with exclusive reference to *that object*, have at last made a breed whose ears reach over their heads to the ground. The tails we know have been bred off of dogs altogether, whilst in some of the Barbary states, attention has been exclusively given to the *enlargement of the tails of sheep*; until that member, esteemed, there, a *tit bit* among epicures, sometimes weighs more than the two fore quarters; and even sexual access to the female is rendered impossible, without manual intervention. Now there can be no doubt, that those who breed sheep chiefly with a view to *mutton*, would do well to give to their flocks a *sprinkling* (say an eighth) of the blood of the Tunisian-mountain-broad-tailed sheep; for, as my friend Col. T. well knows, a good broad fat tail is the natural appendage and mark of a *fine saddle*; but what would soon come to be the condition of his flock, were the breeder for a long series of years, in selecting his stock sheep, to look at and care for no quality but the *size of the tail*? so in the selection of seed corn, or seed tobacco, or any other seed—If we have regard exclusively and for a long succession of time to *one* particular object, we may undoubtedly cultivate *that* into a degree of excess, running at last into a state of monstrosity; and sacrificing to it, other properties, equally indispensable to the value of the subject in hand, such as (in the case of tobacco, corn, wheat, &c.) its colour, weight, early maturity, &c. Last summer, I made a very short visit to a very old friend—old as times go, for it was a friendship uninterrupted for thirty years; and as we rode through his magnificent field of Baden corn, higher than you could reach with your whip; he told me he meant to "*breed back again*." He is a near neighbor of Mr. Baden, and had followed his example, selecting his seed corn from stalks having the greatest number of ears, until the ears had become in too many cases spindling—mere nubbins—"I will breed back," said he, "to stalks with not more than *two good ears*."

He thought, and I have no doubt, his corn had degenerated under the system of exclusive cultivation of the *number of ears* merely, without reference to their size and to early ripening and flintiness and weight of grain—in other words to the quantity of nutriment and of material for manure, to be gathered by a given quantity of labour, from a given measure of land! for these I take to be the true tests.

Major Mercer, on his beautiful estate, Cedar Park, on West River, (the favored and garden region of the U. S. for aspect, richness, and luxuries of the water and the land,) though a planter of the so called Baden corn, as a large proportion of Maryland planters have been for years, has not lost sight of other essential properties in that kind of grain-bearing plants. With the aid of one of the most energetic and sensible managers in any country, Mr. Crawford, he has improved upon the

Baden corn, by selecting for planting ears of the heaviest and most flinty grain. By the bye, the system of selecting from stalks (as we call them) having the greatest number of ears, is an old story. You may find it fully discussed in the early volumes of the American Farmer, and as far as I remember, the system as a system, was first promulgated by Mr. Cooper of New Jersey, and by Mr. Cook, (see vol. 3,) although the principle is self-evident and well known, as that "like produces like." Pigeons we know may be "bred to a feather," and if we may believe, as we must, finding it where we do, the story of Laban, and that sly rogue Jacob his son-in-law, even the imagination of animals may be employed to ring-streak and spot them at pleasure.

I remember when a boy, that my father cultivated the yellow gourd seed corn, and at husking or shelling time, caused ears with the greatest number of rows to be selected for seed, until they were brought in some cases to have *forty rows*! I believe the gourd seed family to be the most productive in *quantity* of grain, but am not informed as to its *weight* as compared with a like measure of other corn. My impression is, that bushel for bushel, Major Mercer's corn would considerably overgo it. The gourd seed has, I believe, a *large cob*, and, what some say of the Baden corn, is *too late in ripening*. I know that my father, (let me never use his name but with reverence for his practical virtues and good sense,) who was always a corn-seller, in giving a barrel measure "in the ear" of his yellow gourd seed, was always paid for six bushels of grain. Those who doubted were welcome to test it. He contended that a *large cob*, was no objection in itself, provided the *grain was long in proportion*, since it must take more grain of any given length to go round a large, than a small circumference.

The truth is, Mr. Editor, in my humble judgment, that in this, as in other cases, we should keep our eye, not alone on number of ears, or size of animals—there are *various* circumstances to be considered. We must look at the objects we have in view, and the adaptation of our means to our ends—we must study the habitudes of the plant, and the properties of the animal; and see how far they are adapted to our climate, and the food which is the spontaneous growth of our particular soil; or that which it *willingly* and in conformity with its nature, yields under artificial helps and appliances. We must in a word *study and follow nature*! She will not be *forced*, and if you attempt it, you will soon find that what you would compel her to nurse, against her will and ordinances, will soon either change its nature and accommodate itself to her fixed and irresistible laws, or—it *will perish*, as the best things do, when subjected to ill concocted and unnatural experiments. Thus you cannot preserve in its excellence the white wheat of Talbot county, on the limestone lands of Washington—a few years will change its very nature and colour—so with the Havana and the various kinds of tobacco, and so with the different families of Indian corn—transplanted to different soils and climates, they must alter their nature and adapt themselves to their new situations, or they will degenerate and perish if they cannot.

Nothing is so common, not to say stale, as the charge against agriculturists, of *intractability*,—

obstinacy in adhering to old things and old customs—is the charge well founded? are they not on the contrary too apt to mount new hobbies? Is it not probable, that by this time nature has indicated in our various states and latitudes, the plants and animals adapted to them, and may it not be concluded that without introducing others, altogether new and different in their natures and properties, the better plan is, to take what is already acclimated with us as the *basis* for improvement, and making a nice discrimination of the qualities that go to make up excellence and value in what we have, sedulously cultivate these *several* particular qualities for the best average result, without running away upon any *one* of them—for instance, the *number* of ears! though these may happen to grow on stalks 20 feet high, yet a great proportion may be nubbins, and so late in ripening, as to be caught by the frost.

For corn, let the planter ask himself what are the *desiderata*, under his particular circumstances: in Maryland, for instance, where we have a middling latitude, a *but* middling soil, slave labour, a not very minute and careful cultivation, with danger of early frost, and is not the answer early maturity, weight of grain, and *few* ears in proportion as a saving labour—large cob, to the extent that you can have with it length of grain, stalk of middling height, that the tops, *if cut*, may be easily reached, and the ears not too much shaded from the sun, the ear growing near the ground to be easily come at, *if pulled* in the field, and winter food for stock? Above all, *the greatest weight of grain, or quantity of nutriment, maturing in time to escape the frost*!

Instead of farmers being obstinate and incredulous, if they would *think* more for themselves, relying less on new theories, and more on their own reason and *observation*, they would reap more fruit from their labour, and do more good to society. Any how, such are my crude notions this very *snowy Sunday*, day after St. Patrick's day. If my views are erroneous, the liberal reader will excuse them; for I hold that there can be no greater sign of ignorance and bad breeding, than to take offence at any man for an *honest* difference of opinion in religion, politics or agriculture.

J. S. SKINNER.

Baltimore, 18th March, 1838.

BONE MANURE.

Report of the Committee of the Doncaster Agricultural Association, on the advantages of Bones as Manure, founded on returns received in answer to the queries issued by the Committee. London, 1829.

The committee at their first meeting prepared a list of queries to be submitted to the farmers, with a view of eliciting the necessary information: these were in the following form:

- 1st. How many years have you used bones?
- 2d. How many acres have you boned each year?
- 3d. Were the bones which you used raw, or had they undergone any process of manufacture?
- 4th. What size were the bones?
- 5th. What quantity have you put per acre?
- 6th. On what sort of soil?

7th. At what time of the year, and for what crop?

8th. In what manner applied, drilled or otherwise?

9th. State what mode you prefer?

10th. What effect on the crop?

11th. What effect on the succeeding crops?

12th. What was the price of the bones?

13th. Do you continue to use them?

14th. What other purchased manures have you used?

15th. State the effect of them?

16th. State the effect of them as compared with bones?

17th. State generally any particulars you know on the subject of bones and other manures.

They also laid out into districts the extent of country over which their inquiries were to run, and these districts were allotted among the members of the Committee; each member undertook to send the inquiries, and as far as possible procure returns from the farmers within the district, and was considered at liberty to extend them as much further as he pleased.

In consequence of the queries sent out, returns were received from about fifty persons, comprising a most valuable body of experimental evidence, and furnishing the facts detailed in the report.

REPORT.

In reporting the result of our inquiries on the subject of Bone Manure, we are desirous simply to condense the several facts, opinions, and suggestions which have been furnished by our correspondents. It will indeed be proper to attempt, from the mass of particulars, to deduce the principles which govern them, as the only mode in which such a mass can be made generally useful; and such deductions we desire to draw from the proofs before us, and not from mere theory or opinion. The very basis of our system of inquiry has been, that experience is the only guide, and theory and opinion unsafe.

The simple question is: are bones useful as a manure, and to what extent? But to answer it, we must first consider it as respects different soils, whether sand or gravel, clay, loams, limestone, peat, or warp. Even these divisions, when about to be acted upon, will be found varying in other particulars, as moisture and quality.

Beyond the various kinds of soils, there are considerations in its use—as to the particular stage of cropping it applies to—grass or arable—in arable, whether on the fallow or the white corn crop, on the seeds or on the last crop, and in all at what period of the year. To all these again we must add the manner of application, whether as raw, or after passing through processes of manufacture—in what quantity—of what size—and whether broad-cast or drilled.

On the clay and loamy soils the returns are not so numerous, but sufficiently so to warrant definite conclusions. These comprise the clay district lying north of Rotherham, and the occasional occurrence of it in this neighbourhood. On the peat which is found in and on the borders of the level of Hatfield chase some interesting returns are made; and it is only upon the warp (which is an alluvial soil almost peculiar to the banks of the Trent and Ouse) that a single return is the

limit. These soils we deem a fair specimen of those usually classed under the same names throughout the kingdom.

It would appear that the use of bones within the district we have alluded to is of very modern introduction, the average of returns would not reach twenty years, and only one alludes to their use beyond the term of forty years. Colonel St. Leger, then residing at Warmsworth, was the first person who is known to have used them, and his introduction was in 1775. Mr. Horncastle's experiment in 1794, which will be subsequently alluded to for the purpose of explaining their ill success, was another of the earlier efforts; the early progress does not seem to have been rapid, from the practice of laying them on almost unbroken and in very large quantities; and it is only within the last fifteen years, when the practice of grinding them was introduced, that they have excited general attention.

The returns received satisfactorily establish the great value of bones as a manure, though "experiments on manure in this varying climate are not much to be depended upon. The seasons, whether wet or dry, the previous state of the land, and the component parts of it, all tend to make experiments doubtful in their comparative results. Yet, where a course of practice so long established as the use of bones has furnished such an amount of experiments, all doubt may at once be discarded." Our correspondents, with only two exceptions, all concur in stating them to be a highly valuable manure, and on light dry soils superior to farm yard dung and all other manures. In copying the language of one of them with reference to dry sandy soils, we express the opinions repeated in the far greater number. "I consider bone tillage one of the most useful manures which have ever been discovered for the farmer's benefit. The lightness of carriage, its suitability for the drill, and its general fertilizing properties, render it peculiarly valuable in those parts where distance from towns render it impossible to procure manures of a heavier and more bulky description;" for as stated by another, "the carting of six, eight, or ten loads of manure per acre for one mile only is no trifling expense." "The use of bones diminishes labor at a season of the year too when time is of the first importance, for one wagon load of one hundred and twenty bushels of small drill bones is equal to forty or fifty cart loads of fold manure."

Upon very thin sandy land its value is not to be estimated; it is not only found to benefit the particular crop to which it is applied, but extends through the whole course of crops; and even in the succeeding courses its effects are visible in the improved quality of the land, and the efficiency of a smaller quantity than would at first have ensured a crop. The Hon. J. Simpson states, "that upon much of the highland about Babworth, which is a light sandy soil, the crops under the ordinary farm management were comparatively unproductive; but that since the introduction of bones, after having for several fallows been dressed with sixty or seventy bushels per acre, not only have they become productive, but so much improved in quality as to return an equal crop with a much lighter dressing of manure or bones throughout the next course."

On the dry limestones near Doncaster the same

favorable results have been obtained, and no failures, beyond those attributable to peculiarity of season, are noticed. On the Yorkshire wolds it appears that on Sir Francis Wood's estate at Garrowby, "by the frequent recurrence of turnips, the crops dwindled to nothing, and the fallows, though tolerably manured, were covered only with *galeopsis tetrahit* (common hemp nettle,) *spargula arvensis* (spurry,) and other weeds, instead of turnip plants. By the use of the very small quantity of twelve to twenty bushels of bone dust in drills, the turnip crops are now rendered excellent, and the following crops very considerably improved." Of the Lincolnshire wolds, the facts collected by Mr. Beckett Denison of Doncaster are equally striking, embodying the experience of fifteen or sixteen extensive farmers. "Before bones were generally used with turnip seed, many thousand acres were annually sown for that crop without any manure whatever; from the impossibility of getting fold manure for more than one-third or fourth of their fallows. The turnips upon such unmanured land were consequently very indifferent, and the benefit of sheep feeding upon their tops (for bottoms they had seldom any,) was very trifling. Since the use of bones has become general, the turnip crop has been in many instances tenfold, and in few less than four or fivefold its former bulk. All the succeeding crops of grain and seeds have been amazingly increased; and upon the four or five shift system there is no doubt the land will go on progressively improving, requiring a less quantity of bones annually, from its increased fertility and power. These limestone soils are generally near the rock or chalk.

On the light loams the reports are favorable, giving it a preference to the ordinary dressing of farm-yard dung. On the heavy loams and clays the experiments are unfavorable. It is laid down as a necessary qualification in a soil for bones that it should be dry, and only one exception appears in the whole of the returns. Mr. Marsden, upon what he describes a wet sand soil, with an irony colored subsoil, drilled two quarters per acre, and had an excellent crop, where manure had been previously tried without effect. But these experiments being made in the year 1826 and 1827, which were unusually dry, may serve to explain the fact, and preserve the common principle unaffected. We are upon this principle authorised to infer, the clay soils are in general too moist to receive any considerable benefit from bone tillage.

Upon peat soils, observing the principle that they must be previously laid dry, the advantages of bone manure are reported to be very striking. From fifteen to twenty bushels of dust per acre, drilled, have been found to surpass very far the ordinary dressing of farm yard dung, and even lime and pigeons' dung.

Two reports on this head, which are unfavorable, are explained by the fact of the peat being moist and not sufficiently dried.

The single report upon warped land which we before alluded to is decidedly favorable, but this was not upon river warped land, but warped by trenching.

Upon gravels little is said, and that little contradictory in the letter, although reconcilable in principle. A gravelly soil may embrace every variety of texture and quality, from the light dry

sand to the water-logged yellow clay; preserving in each the necessary admixture of stone and grit. Upon the light dry gravel, one report is favorable, though in another a strong opinion is hazarded against even dry gravels. But the report on wet gravel is decidedly unfavorable, according in this with the general principle.

To the general testimony to the excellency of this manure, we may add the following particular facts of its durability. "On a field, part of which was boned fifty years ago, the crops were on that part visibly better for fifteen or sixteen succeeding years than the remaining part, although the land was all of the same quality; and part not boned was manured with farm-yard dung. In another case, "about three acres of light sandy land were boned with one hundred and fifty bushels per acre by mistake, and although it was as far back as the year 1814, the land has never forgotten it, but is nearly half as good again as the other part, farmed precisely in the same way with the exception of the one dressing of bones."

It is noted as the peculiarity of bones, to succeed upon dry soils, and in dry seasons, when common manure loses much of its efficacy. Mr. Birks remarks, "I have noticed the turnips of my neighbors who have used ten loads of one year old fold manure, have been nearly destroyed by the fly, while mine with bones, and two year old fold manure, and a previous slight top dressing of Knottingley lime, have been but slightly injured. I think a quantity of the egg or grubs which produce the fly, is generated in the one year old fold manure, that the continued sunshine matures them, and for want of rain or cool weather to thin them, they all come into action against the plant. With the use of a small quantity of two year old manure with the bones, a less number of the insects is brought to life. There is also a disease in turnips called fingers and toes, which is occasioned by an insect within the turnips. I am confident my turnips have been less subjected to this disorder than those grown on one year old fold manure. In thin, sandy, and porous soils, and where the subsoil is gravelly, also on the sides of hills, much of the essential part of fold manure and of rape dust and other top dressing is often washed away by rain. If there is a long succession of heavy rain, the loss to such manure is very great. In very hot and dry seasons, the virtues of fold manure are also suddenly evaporated. But on dry land, bone manure in all seasons and under all circumstances is durable." In Mr. William's experiments on a light sand in 1827, he states, "this being a particularly dry season, the only good Swedes was with bone manure, and I never had a better crop. I this year tried an experiment of bones against farm manure for Swedes, and found the bones superior." The general experience is decidedly in favor of a dry season being suitable for bones, although it is seen that in the excessive drought of 1826-7, many failures even with bones are recorded. We have two opinions of a moist season being most favorable to the action of bone manure. Were it not that the parties giving them had used bones, the one eighteen and the other twelve years, we might conclude the opinion had been formed from the results of those extraordinary years; we would, however, infer as the explanation, that the soils

on which they appeared were more than usually dry and liable to drought.

The beneficial effect upon the after crops from bones applied to turnips, is (in conformity with the opinion notoriously current in this neighborhood) stated "to depend mainly upon the turnip crop itself." If that crop is heavy the eating them off by sheep is believed to add more to the fertility of the land than even the bones themselves. In proportion to the number of sheep which can be fed per acre is the benefit to the land. The results on the Duke of Newcastle's estate, may be taken as the experience of every farmer upon the like soils: "whenever a crop of turnips is obtained upon dry sandy or gravelly soils, the succeeding crops of corn and grass seeds are usually abundant, except in very dry seasons; but whenever turnips miss, the subsequent crops of corn and seeds are seldom productive, unless assisted by an additional quantity of manure. It must be obvious, therefore, that any measures which will reduce this crop to a greater certainty is of the highest value."

Concurring with these proofs of the excellency of bones, it is highly gratifying to find proofs of a rapidly extending demand for them. In no one return, in answer to the query in our circular, Do you continue to use them? has the answer been in the negative. The impression which is prevalent in our neighborhood, that he is not to be accounted a good farmer who does not use them, is echoed from the wolds of Lincolnshire. In Berwickshire it appears "their use is rapidly increasing, and every person who has made trial of them seems quite satisfied of their utility." * * *

Having now endeavored to give an outline of the results of the use of bone tillage, we must descend into the practical details of the time and manner of its application. To consider first the time of its application, we inquire, on grass land or on arable?

Upon grass the returns are not numerous; those which are received are very favorable, and state the herbage, whether for hay or pasture, to be increased in quality and quantity. Six hundred bushels of small bones were in 1822 spread upon twenty-four acres of grass land in the dairy farm, Clumber Park, consisting of dry sandy and gravelly soil which had been laid down about ten years. It had a very good effect, the cows depastured on it were in better condition, and about twice the quantity of butter was gathered from them than from cows depastured upon land of similar quality, but not boned; and this effect still continues. Mr. Birks observes, "with respect to grass land, the extent of the fertilizing quality of bones is still greater than on arable." Valuers usually estimate the allowance to a quitting tenant with respect to Sheffield bones, by supposing them in tillage land and on meadow ground exhausted in four years; but in grass land depastured they are considered to be exhausted in eight. But if alternate lands of a pasture field were tilled, one with common manure, the other with good bones, the great superiority of the latter would be visible for twenty years.

Upon arable, we have to consider the stage of its introduction into a regular course of management. The whole of our correspondents adopt the application upon the fallow, and thirteen have also used it for the intermediate crops, particularly

the last crop in the course. The effect of its application to the interminate crops is not very carefully separated from the effects upon fallow; but we seem authorised, in the absence of any observation to the contrary, to infer, that the effects are good, although from the greater prevalence of the fallow application, this may be considered preferable. If the seeds are manured on the plan before recommended, there will be little need of the bones for the last crop; but if the manure is needed, bones are found to answer the purpose. The effects of rape dust and other manures called artificial will be subsequently stated.

Upon the fallows, the general time of applying them is previously to or at the same time with the turnip seed in May, June, July, and August. For the intermediate crops, the bones will be applied with the seed.

The next point of inquiry is the manner in which they are best used; this embraces as well the method of putting them into the land by drilling or broadcast after they are prepared, as also the best manner of preparation, whether broken large or small, whether raw or after having undergone processes of manufacture, and whether singly or mixed with other manures.—The remaining branch of inquiry will be the quantity.

First, then, as to the drilling or broad-casting, the great weight of evidence is in favor of drilling, although the contrary course is held by some very intelligent farmers. A third mode is acted upon by others, of sowing them broadcast, and gathering them into ridges with a mould-plough. Mr. Workman prefers broadcast for barley, and the Rev. G. Wright and Mr. Weldon prefer broadcast for the white turnips, although in other cases they give the preference to the drill. * * *

In their preparation a decided preference seems to be given to bones broken small, and the half-inch bones are those most generally used. Mr. Birks states, "If I were to till for early profit, I would use bones powdered as small as sawdust; if I wished to keep my land in good heart, I would use principally half-inch bones, and in breaking these I should prefer some remaining considerably larger." Reasons for this belief are thus stated by Mr. Woodcock: "By using bones of a large size with dust in them, I think I have sufficient of the small particles of the dust to set the turnip crop forward, and sufficient of the large particle of the bone left to maintain the land in good condition for the last crop."

The quantity, however, is on all hands allowed to depend almost entirely on the size of the bones. It appears that in the earlier stages of their use, before they were commonly ground down, as much as an hundred bushels and upwards were laid on per acre. Now the average of our returns, although we have reason to believe it is much above the general average of the country, amounts to about thirty-nine bushels per acre. * * *

The best judgment we can come to upon the facts before us warrants our conclusion, that an ordinary dressing of bone tillage broken down to the smallest size above dust is twenty-five bushels, and of the half-inch and inch bones forty bushels; that this would be the quantity requisite on land of ordinary quality, and in an ordinary state of cultivation; the poorer or worse cultivat-

ed lands requiring a greater quantity, and those in a higher state of cultivation or richer, a less.

Another point with respect to the state of the bones is whether they are preferable in their raw state, or after they have passed through an oil or glue manufactory. It is acknowledged by our correspondents to be a prevalent opinion among intelligent farmers, that manufactured bones are equal in their effects to the raw bones. Mr. Short states an experiment he made in the year 1812: "He boned twenty-four acres at the rate of fifty bushels an acre—on one part he put London bones, having had the oil stewed out of them; and another part was tilled with bones, collected from Nottingham, which were full of marrow; and a third part with horses' bones having much flesh upon them. He could not see any difference in the turnips, they all being a good crop; but the next crop was not so good where the fleshy bones had been laid." He adds it as his firm opinion, "that bones act soonest for being boiled or stewed, as the fibres of the turnips or any other plant take hold of them sooner after the oleaginous part, which impedes their decomposition, is taken from them either by boiling or stewing."

Mr. Broughton however states, that he has found bones in their raw state much superior in point of their duration to the manufactured bones. An observation of Mr. Horncastle's may lead to the explanation of this seeming contradiction. "My opinion is, that bones are not a manure until they have undergone some degree of fermentation, after which they will more readily decompose. It is known that a strong fermentation takes place when boiled by the bone collectors in London. After being in a heap they became extremely offensive; and when they obtain this bad smell, I consider they are in a state to break up for manure. They are also liable to heat when in a great body on board ship; but as I know nothing of chemistry I hope the subject will be considered by those who are more capable. I judge from experiments made by me in the years 1794, 1796, and 1814." As those experiments tend to throw light upon this difficult subject, we subjoin them.

"The first bones which I used (in 1793) were from the dog-kennels; I had them broken at Old Coats mill, and spread them on a fresh ploughed clover lay the same day. On the following day wheat was sown, and the bones and wheat harrowed in together. The quantity was about eighty bushels on one acre; the crop was bad, and I never could observe any good effect from these bones afterwards. This was upon high sand land. In 1796 I sent another wagon load of kennel bones to be broken; they were spread the following day upon a piece of fallow upon Blyth Forest, at the rate of about eighty bushels per acre, and were ploughed in by a very thin furrow on which turnip seed was sown: there was a full plant, but the turnips were small, and did not appear to derive much advantage from the bones, neither did the succeeding crops. I shall here observe, that after these trials of bones for manure I thought they were not adapted to sandy soils; but afterwards, by observing others use them with great success, I thought that my failure might arise from having used the bones immediately after they were broken, and consequently before any heat from fermentation had taken place. As a further experiment, in 1814, I again sent some bones

from the dog-kennels to be broken, and then laid them on a heap which I covered with earth; they remained in that state about a month, and were then spread with turnips. The land was ridged with a double mould plough, and turnip seed drilled in the ridges. The good effect of these bones was to be seen on every yard on which they were spread, being the largest and best turnips in the field, although the other part was manured from the farm-yard where a considerable quantity of oil cake had been consumed."

With the principle stated by Mr. Horncastle, corresponds the experience of the Rev. C. Cator. He states, in the use of bones, especially of the larger sort, those that appear upon the surface of the summer seeds should be "gathered off, and either broken again or mixed with earth, scrapings of the road, &c. wherein they will undergo another fermentation, and be quite as beneficial as any other bones. I had an extraordinary proof of their efficacy, so collected and mixed with road scrapings, in the same field in which the greater part was heavily manured with good fold yard manure; and though the whole field was a good crop, that with the compost of bones, &c. might be discovered to a single row for their superiority.

The principle thus developed naturally leads us to another of great importance, which has been elicited by the practice of intelligent farmers; and, like all principles developed by practice, the most certain and satisfactory, from its having proceeded from no theory previously formed. It is the accurate observation of facts which leads to every practical improvement, and a classification of facts proves the one principle which pervades them.—This principle is the superiority of a compost of bones and manure, or other substances, over bones used singly. The effects of such a compost are stated by thirteen of our correspondents, who present them as their own individual conclusions, and a course into which they have individually been led by experience, without having had as far as appears any communication with each other: such a coincidence is too regular and marked to allow us to attribute it to any accidental circumstance, and the force of the concurrent testimony is so great as to leave no reasonable place for doubt. * * *

It may be matter of inquiry and deduction from the statements previously made, to trace the benefit arising from compost to its source. Mr. Birks states from his own observation, that on mixing the ashes from house fires with the bone compost, great heat is occasioned: this heat may be supposed to be the heat of fermentation, and more especially as from Mr. Micklethwait's, Mr. Cator's, and the several other statements, it is apparent that the mixing bones with soil or other manure rapidly promotes fermentation. If this be the case upon the principle before alluded to, the bones are by fermentation much sooner serviceable, and the other substances mixed with the bones may equally be benefitted by it.

Another principle of great value is stated by Mr. R. Littlewood: "If it be true that the component parts of the earth are adapted for the growth of particular kinds of vegetables and grain, what can be so fit and proper to bring those parts into action as a mixed tillage? And it is also quite clear, that the system of cultivating tillage land must be often changed in the cropping, in the grass, and in the manure also." In this principle of the

propriety of changing manures, ten others fully agree, and this opinion fully strengthens the former one of the superiority of bone compost.

After having thus gone through the detail, it may be well to subjoin a brief summary of deductions we draw from them, as an assistance in their practical application. It appears then,

On dry sands, limestone, chalk, light loams, and peat, bones are a very highly valuable manure.

They may be laid on grass with great good effect.

On arable lands they may be laid on fallow for turnips, or used for any of the subsequent crops.

That the best method of using them when broadcast, is previously to mix them up with earth, dung, or other manure, and let them lie to ferment.

That if used alone, they may either be drilled with the seed or sown broadcast.

That bones which have undergone the process of fermentation, are decidedly superior to those which have not done so.

That the quantity should be about twenty-five bushels of dust, or forty bushels of large, increasing the quantity if the land be impoverished.

That upon clays and heavy loams, it does not yet appear that bones will answer.

With respect to price, it is not important to note any particulars beyond the calculation of the expense of a dressing of bones compared with farm-yard dung. Twenty-five bushels of dust at the present price of 2s. would amount to £2 10s. Forty bushels of large bones at 1s. 10d. would amount to £3 13s. 4d., and these are shown to be equal to an ordinary dressing of eight or ten loads of fold manure, which at 10s. would amount to 4 or £5. But the most material saving will be in the carriage, and in the difference of expense between drilling bones with the seed and dressing the land over with dung in the usual manner. A still greater advantage accrues from their use in the saving of time, which may enable a farmer to put in the turnip seed sooner than where there is so much carting to perform.

ROBERT SINCLAIR, Jr. & CO.

Light street, near Pratt street Wharf,

OFFER FOR SALE, an extensive assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and SEEDS, comprising all that are required to stock the most extensive plantation. Particular attention is directed towards the manufacturing department, where the most competent workmen are employed and durable materials used.

The assortment of PLOUGHS is large and various, among which are the Double mould board, Sub-soil, Self-sharpening, Improved Davis, &c.

WHEAT FANS—Com. Dutch, Crank Shake, and Watkins' Patent.

CORN SHELLERS—For manual and horse power, warranted to shell 2 a 700 bushels of corn per day.

CORN AND COB CRUSHERS—For breaking the cob in suitable size for feeding stock.

CYLINDRICAL STRAW CUTTERS—of these there are several sizes. The late improvements made have rendered them the most perfect and effective Straw Cutters in the country.

THRASHING MACHINES and Horse Powers.

CULTIVATORS, for cultivating Corn, Tobacco, &c.

DRILL and SOWING MACHINES, for drilling vegetable and grass Seeds.

VEGETABLE CUTTERS, for slicing turnips, mangel wurtzel, pumpkins, &c.

HARROWS—Expanding, Corn. Square and Diamond shape.

GREEN'S PATENT and common DUTCH STRAW CUTTERS.

ALSO,

Grain Cradles and Grass Sneaths, with warranted Scythes attached, Sickles, Scythe Stones, Grain and Hay Rakes, Hay and Manure Forks, with 2 a 6 prongs, Ox Yokes, Grubbing Hoes, Docking Irons, Ames' Spades and Shovels, cast steel Axes, Bramble Hooks, Hay Knives, Box, Pruning and Sheep Shears, Grass Hooks, Pruning Knives, Children's Spades, and various other Garden Tools.

Merchants wishing to purchase Ploughs and Castings to sell again, will find it to their interest to examine our stock, being the largest and most general assortment in this city, and for sale on liberal terms.

GARDEN & FIELD SEEDS—Just received from Europe, and from the Clairmont Seed Gardens near this city, an extensive assortment of Garden and European Field Seeds, warranted fresh and genuine, viz.

French Sugar Beet Seed, Mangle Wortzel, Ruta Baga, superior Beet and Radish Seeds, early and late Cabbage Seed, 30 kinds early and late Peas, bunch and pole Beans, Hybrid and other Turnip Seeds, Cauliflower and Broccoli; Scotch Kale, Parsnip, Carrot, Cucumber, Lettuce, Onion, Summer and winter Squash, Melons, Leek, Celery, Ockra, Salsafy Cress, superior assortment of Flower Seeds, Herb Seeds, etc. etc.

FIELD SEEDS—English and Italian Ray Grass, Trefoil, Burnet, St. Foin, Lucerne, white and red Clover, green and blue Grass, early Potatoes, Gama Grass Roots, Baden and Mercer Corn, Italian and Tuscan Wheat, Timothy, Herds and Orchard Grass, Millet, etc.

TREES AND PLANTS supplied at the shortest notice from the Clairmont Nurseries, near this city.

Wanted, prime lots Seed, Grain and Grass Seed.

TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$15 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$50 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Scythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms, and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We would particularly call the attention of *Country Merchants* and others, wishing to purchase agricultural implements to sell again, to the fact, that we will furnish them with articles on better terms than they can be supplied at any other establishment in the city. Our assortment is complete and as varied as that of the most extensive concern in Baltimore.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled *entire* all orders in the Agricultural and Seed Departments. mh 26 JOHN T. DURDING & Co.

CONTENTS OF THIS NUMBER.

Weight of Mr. Belzhoover's cattle—Maryland and encouragement to agriculture—*Morus multicaulis* for sale—the N. Y. Farmer—wheat bounty in Maine—spring wheat production—premium for an essay on the grain-worm—silk culture in N. Y.—scarcity of the *morus multicaulis* in France—recommendation for an agricultural society in Prince George's co.—time of sowing spring wheat—essay on Baden corn—report to the Doncaster agricultural society on bone manure—advertisements, &c.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	70	72
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana—Alabama	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's.....	"		
SuperHow. st. from stores	"	7 87	8 00
" wagon price,	"	7 50	7 75
City Mills, super.....	"	7 80	8 00
" extra	"	8 25	8 37
Susquehanna,.....	"		
Rye,.....	"	6 50	
Kiln-dried Meal, in hhds.	bhd.	19 00	
do. in bbls.	bbl.	4 00	
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 25
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.		7 50
Slaughtered,.....	"	6 25	7 00
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	37	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	5 50	
Ground,.....	barrel.	1 50	scarce
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	2 50	3 50
" brown and red,....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,....	"	8 00	10 00
" good yellow,....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 65	1 70
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.	gallon.	33	
" in hhds.	"	34	
" wagon price,.....	"	bbls	30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	
To Wheeling,.....	"	1 75	
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35 40	18 20
Three fourths Merino,.....	"	30 35	18 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this all, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,.... do.....	"	11	
Middlings,.... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
Cows, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ————No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,....do	Farmers Bank of Virgi. 14a1½		
Other Branches,.....do	Bank of Virginia,..... do		
MARYLAND.	Branch at Fredericksburg, 1½		
Banks in Baltimore,....do	Petersburg,..... 1½a1½		
Hagerstown,....do	Norfolk,..... 1½a1½		
Frederick,.....do	Winchester,..... 1		
Westminster,.....do	Lynchburg,..... 1½a1½		
Farmers' Bank of Mary'd, do	Danville,..... do		
Do. payable at Easton,....do	Bank of the Valley, .. 1		
Salisbury,.... 1 per ct. dis.	Branch at Romney, .. 1		
Cumberland,..... do	Do. Charlestown, .. 1		
Millington,..... do	Do. Leesburg,.... 1½a1½		
DISTRICT.	Wheeling Banks,.... 3		
Washington,.....	Ohio Banks, generally 6a7		
Georgetown,..... Banks, ½p.c.	New Jersey Banks, gen. 5		
Alexandria,.....	New York City,.... par		
PENNSYLVANIA.	New York State,.... 3a4		
Philadelphia,..... par	Massachusetts,.... 3a3½		
Chambersburg,..... ½	Connecticut,.... 3a3½		
Gettysburg,..... do	New Hampshire,.... 3a3½		
Pittsburg,..... 2½	Maine,..... 3a3½		
York,..... ½	Rhode Island,.... 3a3½		
Other Pennsylvania Bks. 2	North Carolina,.... 5		
Delaware [under \$5].... 4	South Carolina,.... 6a7		
Do. [over \$5]..... 1½	Georgia,..... do		
Michigan Banks,..... 10	New Orleans,..... 12		
Canadian do..... 10			

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old Nortorn Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr dam, (Layd Sarah) by Pilot; gr gr dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcery, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

NEW BALTIMORE SEED STORE.

THE Subscriber having located himself in Grant street near Pratt, three doors in the rear of Dinsmore & Kyle's Grocery Store, takes this early method of informing his friends and the public, that he has commenced the GARDEN AND FIELD SEED BUSINESS, and solicits a portion of public patronage. He has on hand and intends keeping, at all times, a constant and general assortment of the very best FIELD AND GARDEN SEEDS, a part of the latter, being of the last year's importation, and all the growth of 1837.

Also GARDEN AND FARMING TOOLS, of various kinds; a few barrels of ITALIAN Spring WHEAT; BADEN CORN, raised, and carefully selected by Col. Mercer—DUTTON; MANDAN; SIOUX; AND EARLY SUGAR CORN; CLOVER; TIMOTHY, ORCHARD, & HERD'S GRASS SEEDS; CUCKERWHEAT; OATS; MILLET, WHITE DUTCH CLOVER; LUCERNE; TREFOIL; SAINFOIN, ENGLISH RYE GRASS, &c. &c.

Farmers, Gardeners, Merchants, Captains of Vessels, and others, are invited to give him a call, as they can be supplied not only with Field and Garden Seeds of all kinds, but also with PLOUGHS; HARROWS; STRAW CUTTERS; CORN SHELLERS; WHEAT FANS; WHEAT CRADLES, &c. &c., together with all other kinds of useful implements of Husbandry, manufactured and kept constantly for sale by John T. Darding & Co. at their Agricultural Store, also in Grant street. Orders for articles in the above line by mail or otherwise, shall be faithfully and punctually executed.

THOMAS DENNY,

Grant street, 3 doors in the rear of Dinsmore & Kyle's. N. B. Fruit and Ornamental Trees furnished to order by giving timely notice—double Dahlia and other bulbous roots, together with flower Seed of superior kinds, furnished to order. feb 13

MORUS MULTICAULIS TREES.

The subscriber has for sale 20,000 first-rate trees of the Morus Multicaulis, from 3½ to 8 feet high, now ready for delivery. The prices are, for trees 3½ to 4 feet high, \$25 per 100; 4 to 6 feet high, \$30 per 100; 6 to 8 feet high, \$37 50 per 100; or for all sizes mixed, \$30 per 100. Cuttings \$40 per 1,000. Orders will be attended to with the greatest care, and the trees forwarded by the first conveyance to persons at a distance who send their orders by mail.

I am also prepared to contract for the supply of any quantity of trees, deliverable either next fall or the ensuing spring, upon the most favorable terms, having made arrangements for the cultivation of a large number the coming season. The trees to be delivered next fall will have all the side branches on them, unless specially agreed upon to the contrary; so that persons purchasing them will have the advantage of using them as cuttings for immediate propagation.

GIDEON B. SMITH, mar 20 Baltimore

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

jan30

J. S. EASTMAN.

law3w

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 49.

BALTIMORE, MD. APRIL 4, 1838.

Vol. IV.

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS *per annum*, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, APRIL 4, 1838.

We have been politely favored by the Rev. Hy. Coleman with his *first report* made to the legislature of Massachusetts at its present session, as Commissioner for the agricultural survey of that state. This report contains a fund of most interesting matter connected with the husbandry of those counties which have been examined by the Commissioner, and to those who know the accomplished author, and what enlightened farmer does not, we need not say that the facts lose nothing of interest from the dress in which they are clothed; for, in addition to a thorough practical and theoretical knowledge of the science of Agriculture, Mr. Coleman superadds that of being a ripe scholar and practiced writer. Possessed of those advantages, and impelled, as Mr. Coleman is, by a most laudable zeal in behalf of the good cause, we looked upon it at the time of his appointment, as a most fortunate circumstance for his state, that she was enabled to avail herself of his services, and most honorably has he fulfilled the high expectations entertained of his capacity and devotion.

We have been favored with a copy of the second annual report on the Geological Survey of Pennsylvania, by Professor Henry D. Rogers. It is indeed a most valuable document, and unfolds with the hand of a master a portion of those mineral resources for which the key-stone state is so distinguished.

We insert in this day's paper a second communication from our correspondent "W. G." and thank him for the promptitude with which he has complied with our request. The facts he discloses relative to the economy of lime-burning are truly valuable, and we commend them to the attention of our readers; nor has he been less happy in his hint to jurors, to avail themselves of the occasion of the spring term of their respective

courts, to form agriculture associations. This recommendation we trust will be met by those to whom it is addressed in a spirit of corresponding good feeling.

The perusal of our correspondent's communication on the subject of *lime burning*, reminds us of the very excellent machine invented and improved by our townsman, Francis H. Smith, Esq., for *spreading lime*. Now it is just as important to the objects of husbandry to study economy in the *spreading*, as it is in the *burning* of lime, and it is as much so to have the surface of the ground covered equally with the mineral. By the bye, as there is no labor on a farm more unpleasant to the hands, or more trying to their lungs, than the old mode of spreading lime, we should think every gentleman, who has much liming to do, would find it to his interest to procure one of those "lime spreaders," as they save time; distribute the lime more evenly; can be regulated so as to spread almost any given number of bushels to the acre; is not half so distressing to the laborers, and do a great deal more work, and in a better style.

Blight in Wheat—The Rev. Mr. Hy. Coleman, in his report mentions the following interesting fact, which he witnessed during his agricultural survey:

"Of two contiguous fields of wheat, similar in aspect, condition of soil, and kind of seed, which I visited this season, one was severely *blighted*; the other sound and perfect. The only difference ascertainable in the management of the two fields, was that one of the farmers, during the continuance of the heavy dews and damp foggy weather, which occurred while the wheat was in flower, was careful every morning to sweep the dew from his wheat by passing a rope over it. Another farmer in Manchester reports his having pursued this practice in former years with his wheat, and with success."

Rack Heath Plough—The British Farmers' Magazine for July last, has an account of a plough under the above name, invented by Sir Edward Tracey, which gentleman, in speaking of it, says, that he invented it in 1833; that he has broken up nearly 500 acres of land with it; that his crops have been nearly doubled by the effect of its deep ploughing; that the quality of the wheat is much

improved, being a fine plump grain, weighing 63½ lbs. to the bushel; that before this deep ploughing, the land scarcely produced the seed, and that the wheat which it did grow was poor and shrivelled. Sir Edward in conclusion observes, that, as he had no manure to put on his ground, he ascribes the improvement in the quality and quantity of his grain solely to the great depth to which his plough enables him to penetrate the earth, which is about two feet.

GAME LAW OF NEW JERSEY.

We cut the following law out of one of the New Jersey papers, and republish it because we highly approve of its wholesome provisions. To our mind it appears obvious that every state in the union should adopt similar provisions, as without it the poachers will in a few years have destroyed all the most valuable of our birds of game.

AN additional supplement to the act entitled "An act for the preservation of deer and other game, and to prevent trespassing with guns," passed Dec. 21, 1771.

Sec. 1. *Be it enacted*, by the Council and General Assembly of this state, and it is hereby enacted by the authority of the same, That if any person or persons shall kill, destroy or take any partridge, moorfowl, grouse, quail or rabbit, except only between the 1st day of Nov. and the 10th day of Jan. yearly and every year, or any woodcock, except only between the 5th of July and the 1st of Jan. yearly and every year, he, she or they so offending shall forfeit and pay for every partridge, moorfowl, grouse, quail, rabbit or woodcock, \$1 for each and every offence, to be sued for and recovered in an action of debt and costs of suit by any person who shall sue for the same: and any person in whose hands or custody any partridge, moorfowl, grouse, quail, rabbit or woodcock shall be found that have been killed contrary to the provisions of this act, shall be deemed, taken and adjudged the killer and destroyer such game, and liable to the penalties aforesaid, unless such person shall make it appear who it was that killed the same, or from whom such person so possessed thereof received the same; *Provided nevertheless*, that no person or persons shall be prohibited from gunning on his or their own land.

Sec. 3. *And be it enacted*, That the first section of an act entitled "A further supplement to an act for the preservation of deer and other game, and to prevent trespassing with guns," passed Dec. 21, 1771, which supplement was passed Feb. 22, 1830, be and the same is hereby repealed.

Passed Feb. 27, 1838.

COST AND ADVANTAGES OF LIME BURNING—AGRICULTURAL SOCIETIES.

To the Editor of the Farmer and Gardener :

Dear Sir—In a former communication, I endeavored to impress upon the minds of the young farmers (for the old ones are incorrigible*) the importance of directing their attention to lime, and instanced the difficulties I had had to contend with, and the success which ultimately attended my exertions, in evidence of what might be accomplished by a little energy and determination ; I now propose to shew that this powerful auxiliary to a poor farm, (or a good one,) is within the reach of many, who are slow to take advantage of their location ; in fact I cannot see why Baltimore County should bear an unfavorable comparison with the most productive county in Pennsylvania. Formerly it was thought that only those who had the wood and stone upon their farms, could afford to burn lime ; this view became a little more liberal, and then it was thought that others who had a plenty of wood, and lived within three or four miles of limestone might perhaps venture to burn for their farms ; and I now, after an experience of ten years, hazard the bold assertion, that all who own land within 12 miles of a limestone quarry, should be at it even if wood be fifty miles from it ; and that if they live 20 miles distant, and own poor land, they had better go to burning, or give their farms away. Suppose a farmer to be 12 miles from limestone, and that he can make but one load a day. We all know there are seasons of the year when there is not constant employment on the farm for the team, and that a good team of four horses will haul two perches of stone—this is equal to 40 bushels of lime, or rather will make 40 bushels of lime, and that quantity is a tolerable dressing for an acre, and I guarantee will, if judiciously applied, double the product of the land, upon soil adapted to lime.—Then if a farmer can spare his team 30 days in the year, (which all farmers may do,) he will be enabled to lime thirty acres a year, enough on a moderately large farm for corn.

The question may now be put, "how am I to convert the stone into lime if there be no wood within my reach ?" I answer with coal, and I speak from experience when I say, that it is cheaper to burn with coal, than to cut and haul your own wood. All farmers have occasion to send their team to Baltimore with hay, straw, wheat or some crop, and by having a body made on their kay bed, (which I have had done,) may bring home a return load of coal without any extra expense, which may be bought at from two to three dollars per ton, and a ton will burn 100 bushels at least ; in other words, the fuel, if coal be used, will cost from 2 to 3 cents per bushel, expense of quarrying from 1½ to 2 cents, (depending on the quarry) burning 1¼ cents, and cost of stone 1 cent per bushel, making the cash expense 7½ cents per bushel, at which price 40 bushels, (the quantity supposed to be used, and on their

[*Our correspondent is mistaken in this, for among the most intelligent and enterprising of farmers—those who go in the van of improvement,—we know several "old ones."]

land quite enough,) will cost \$3, and for 30 acres \$90 ; and I have no hesitation in saying, that this quantity to the acre will double the products of the land upon two-thirds of the land in Baltimore County ; and here let me say, there are few farms in Baltimore County that have not lime stone thus conveniently within their reach, for where they are beyond twelve miles from stone, they have a rail road in their vicinity, which you well know will give the former as great facilities even at the distance of twenty miles as one possessed by those who have to draw their stone with a wagon and horses but 12 miles. Yet, strange to say, there are so many farmers wedded to their old notions, that they cannot be persuaded to make the experiment, preferring to drag out a long life of hard labor, to troubling their heads with such calculations, whilst others depend on manure from the city to improve with. Let such contrast this estimate, (and they may rely upon its correctness,) with the cost of manure, even under the most favorable locations, that is to say, suppose a farmer to be within such a distance as will enable him to make two loads a day, and 12 miles from stone, and that the 30 spare days of his team be employed in hauling manure, and that 10 loads to the acre equal 40 bushels of lime—the manure will cost in the city one dollar per load, or \$10 per acre—the lime \$3 per acre, making a difference in favor of the lime of \$7, or of \$210 upon 30 acres. Again in the 30 days, he will have hauled 60 loads, sufficient for 6 acres, whilst with the same time appropriated to hauling stone he would have improved more effectually 30 acres. Now suppose the farm to contain 180 acres of tillable land, it would require to improve it with manure 30 years, and at a cost of at least \$1800, whilst with time it might be accomplished in 6 years, and any farmer knows that before you reached the fifth year with manure, you would have to return to the field you commenced with ; and the lime for 180 acres will cost but \$640, and few men will live long enough to see the effect of the lime with good farming lessen. I might go on, and estimate the difference in the crops on improved and unimproved land for 24 years, being the difference in the time required to improve with manure, in preference to lime, but I am afraid to expose the whole truth, for fear some of my readers may doubt the correctness of one of the first lessons in mathematics, "that figures will not lie." It may not, however, be amiss to shew in a more condensed form my calculations.

MANURE, Dr.

10 loads in the city, at \$1 per load,	\$10
The cash expense of lime, which includes every thing but hauling,	3
	—
Or on 30 acres is	\$7 per acre.
It would require to improve 180 acres with manure,	\$210
With lime and the same labor,	30 years.
	6 years.
	—
	24 difference

In the time required for improving with manure in preference to lime.

Whole amount of cost on 180

acres with manure,	\$1800
With lime,	550
	—
	\$1250

Difference in favor of lime, to say nothing of the additional labour in spreading 10 loads of manure, beyond that of spreading one load of lime ; indeed I am surprised that the farmers on the Eastern Shore do not turn their attention to liming.—Many of them own their boats, and instead of returning empty, might carry home loads of stone, which might, I should suppose, be delivered by the rail road on the wharf at \$1.25 per perch, or 6½ cents per bushel.

As I have no doubt tired the patience of your readers by this time with the subject of lime, allow me to call your attention to a matter which I conceive of vital interest to the farmers, and I hope may prove to your advantage. I allude to the formation of Agricultural Societies throughout the State. Cannot there be a simultaneous action on this subject in all the counties ? It occurs to me that the spring term of the County Court would offer a favorable opportunity for organizing such Societies—Let the Grand and Petit Jurors take the matter in hand—let them invite whilst the Court is in session, by public notice in the daily papers, the farmers of the County at the Court House during the term, and at once proceed to organize a County Society of practical farmers. We are at least 20 years behind the farmers to the Eastward, and although the agricultural interest is admitted to be the preponderating interest of the State ; yet there is no interest less protected by our Legislature, or to which less encouragement is extended—besides the advantage of concentrating our influence, much may be gained by a free interchange of views connected with farming subjects.

J. G.

Baltimore County, March 21, 1838.

[For the Farmer and Gardener.]

Mr. Editor—I give you one, of many objections, why every farmer does not pay for, and read, some agricultural paper, with its solution—"I have so little time to devote to reading of any kind, that it would be folly for me to take an agricultural paper." Let us see to what this objection amounts. He has so little time for reading. Perchance he is a poor man, and necessarily compelled to follow the plough as a means of subsistence. Be it so ; but are there not many days in the year, which are not suited to the work of the field ? And might he not of this time, steal a few minutes to run over a paper like yours, Mr. Editor, which comes but once a week, and is of such a size, that it does not tax, very heavily, either a man's time or patience to read it ? And peradventure, this same individual, who is so exceedingly careful to husband his time, at some of his half hour readings, might meet with something, which would save him days of labor, and thus produce two important and useful effects ; the one, an advancement in the knowledge of his avocation ; the other, a saving of time, to be devoted to reading, or other useful employment. But again ; could he not spend an hour or two in reading at night, after the business of the day has been gone through with, and laid aside ? No ; he feels so

much fatigued from the labors of the day, that he has no disposition for reading. Admitted, Mr. Editor, that the physical energy of the muscular system is greatly exhausted, but his brain, the organ of thought, is vigorously active, having been but little employed, for the preceding eight or ten hours, and by bringing his mind to bear upon a well written article, his bodily prostration would be forgotten, amid the sweets of the intellectual feast. In what position of body was fatigue induced? In his business, certainly in the erect position, when his legs performed the double office of sustaining the weight of body, as well as moving it repeatedly from one place to another. But, Mr. Editor, I do not ask him to do as I did when a school-boy, stand up to read; let him sit down, in just such position as will be most agreeable to him; or if he please, let him lie down, and by the light of a candle, (if he has one,) or a *pine knot*, let him read one hour every night, and at the expiration of the year, he will have had about a month's reading of your valuable paper, and no time lost.

W.

[For the Farmer and Gardener.]

ITALIAN SPRING WHEAT.

The following is a copy of a letter addressed by Mr. Bristol of Oneida County, N. Y. to a gentleman in Albany. It was written to correct the false impression that had obtained to a certain extent with the public on reading the letter to which it refers, and which called forth this unanswerable reply. It demolishes the Doctor's letter, giving facts that disprove it at every point, and confirms the previous high reputation of the *Italian Spring Wheat*. We are assured that Mr. B. is a thorough farmer, and is highly esteemed for his intelligence, veracity and probity.

Clinton, Oneida co., Feb., 1838.

Dear Sir,—

The "Cultivator" is a paper in which the farmers of this country feel a deep interest, and one to which many of us refer for information on a great variety of subjects; and it is certainly highly important that the intelligence which it contains should be of such a character as not to lead its readers into error, or draw them into experiments that will surely end in disappointment.

These considerations will I trust afford a sufficient apology for making a few remarks on a communication in the November No. of the *Cultivator* on the Italian and Siberian Spring Wheat, and signed by Dr. Thos. Goodsell. Living as I do in the vicinity of the Doctor's farm, which by the way he seldom sees, and being well acquainted with the several fields on which the wheat he mentions grew, I am able to speak *confidently* of the facts in the several cases referred to.

That a field of wheat in the condition the doctor represents his to have been, "prostrate in all directions," and that too, from the time the *berry was in the milk*, until it was "very wastefully gathered," should have yielded thirty-six or seven bushels per acre, is truly wonderful, and those who can may believe it. His neighbors, on soil precisely like his, with cultivation equally as good, and with seed of the same variety, can do no such thing. But how stands the case, with the

"proprietor of the farm adjoining him on the south?" The doctor says "his field was struck with a rust, which so far shrunk the kernel, that he did not harvest all his field." This would leave us to suppose that the crop was almost a failure: and that too, because it was Italian and not Siberian Wheat. The proprietor informed me a few days since, that the wheat which grew in the hollows of his field, was considerably shrunk, all the rest was of a good quality. The produce of the field (3 acres) has been threshed, and he had sixty-one bushels. A sample of the wheat which he showed me, was as good as most of the Spring wheat raised this year. He also informed me, that being on some business, in the town of Pompey, Onondaga County, last winter, he purchased the seed of a farmer there, who called it the *Siberian* wheat, whether originally from the same place in Siberia as the doctor's, of course he did not say. The field however was all harvested, as the swath plainly shews to this day: rightly judging, that when wheat was worth two dollars per bushel, such a field was worth the gathering.

The proprietor of the next adjoining farm, says the doctor, "procured Siberian seed of me for 1 acre and of the last mentioned farmer, Italian" (whether Italian or Siberian is to say the least doubtful) "for two acres more. He judges that the Siberian will give him at least double the number of bushels per acre, and of double value per bushel." Having been in this field last summer, when the owner was harvesting it, and not observing any remarkable difference, in the different parts of it, I was very much surprised when I learned from the doctor's letter as published, that one part of the field was estimated to yield not only *twice* as much per acre, as the other in quantity, but to be of double value per bushel. This induced me to call on the proprietor, and on reading to him the Doctor's communication, he expressed *very great surprise* at its contents; he has no recollection of having said any thing to the Doctor about the wheat since harvest, and is sure he never could have given the information contained in the article in question, for it is *not true*. He says he could see little if any difference in the field at harvest. The wheat upon the whole field was a little shrunk; one part as much as the other. He has threshed only as he wants for use, and judging from what he has threshed, he is confident no one acre in the field, will yield him more than 24 or 25 bushels per acre. "The proprietor of the field adjoining me on the East," says the Doctor, "sowed of the same Italian seed, about six acres. The growth of this was middling, but as the harvest approached it lacked lustre, and the berry was not full." This is the Doctor's judgement of the field, as he passed it on the road. Others who saw it thought it a remarkable fine field of wheat, even better than the one which was to give "36 or 37 bushels per acre." The owner says he obtained from it one hundred and thirty-three shocks. He has threshed about sixty shocks, which yielded something over a bushel per shock. The field contained a little more than 5½ acres. The straw is clean and bright. The berry full and clean. He has sold 50 bushels of it for seed, which has gone to the South, and is probably as handsome a speci-

men of Spring Wheat, as has been sent from this country this year.

Who the Doctor's "quaker friend" is, that "expects to obtain 40 bushels of wheat from one bushel sown," I have no means of ascertaining; he has not fixed his location so that I can find him: at any rate it is hoped that should he not be disappointed in his expectations after threshing, he will communicate the fact to the public, that they may be able to obtain the seed of such a prolific kind of wheat.

The facts stated above are true, and if desired from any quarter, will be proved beyond a possibility of doubt, and I trust that farmers will not abandon the culture of Italian Spring Wheat, as a comparatively worthless crop, until the Doctor shall have established the superiority of his Siberian variety by "another year's experience," and a more correct statement of facts.

GEORGE BRISTOL.

To J. B. Esq. Albany.

[For the Farmer and Gardener.]

Recipe for Poll Evil or Fistula.—Iodine ½ a drachm; Hyodriodate of potash 1 drachm; Lard one or two ounces: make an ointment, and conjoin with it 1 ounce strong mercurial ointment, and rub well on the affected part. It is a powerful promotee of absorption.

W.

NEW PROCESS OF MAKING MANURE.

From *Bell's Weekly Messenger*.

Corner of Half Moon street, Piccadilly, }
London, December 30, 1837. }

Sir—I beg to hand you a copy of a prospectus relative to a new manure, which I drew up in the course of last spring, by the request of the Earls of Leven and Melville, from the Report of the Committee of the Academy of Agriculture at Paris, and from the certificates given to the inventor by thirty-eight large landed proprietors in France, testifying the value of his invention.

Lord Leven considered, and in which opinion I had the honor to concur, that the best mode of giving the benefit of the discovery to the British Farmer would be, for a committee to be formed for the purpose of collecting a subscription sufficient to defray M. Jauffret's expenses to this country, for the purpose of his making experiments before some person appointed for the occasion.

That an agreement should be entered into with M. Jauffret, that should his invention answer the description given of it, that he should communicate the secret by which he effected the operation, for a sum of money previously agreed upon, and that experiments should be made with the manure under different circumstances, as to soil, &c. to ascertain its relative value with regard to other manures, taking all things into consideration. I have the honor to be, sir, your very obedient servant,

HUMPHREY GIBBS,

Honorary Secretary of the Smithfield Club.

Prospectus of a process for obtaining cheap and valuable Manure, without the aid of Cattle, invented by M. Jauffret, of Aix.

A method has been discovered in France of making manure as it may be wanted, without

cattle, in twelve days, and with great economy, as appears from a report made to the committee of the Academy of Agriculture at Paris, by M. Chatelain, its secretary, who, with M. Cailleau, president of that committee, M. de la Gerandiere, President of the Academy of Agriculture of Blois, and the Marquis de Saint Croix, were appointed to examine into the merits of M. Jauffret's invention.

These gentlemen report "that by a cheap wash or lye, the ingredients of which are to be found in all places, and which every cultivator can make on his own land, all sorts of herbaceous and ligneous substances, such as heather, furze, brambles, and even the living dogstooth, can be put into a state of rapid fermentation, and not only these substances, but even earth itself, be its nature what it may, can be converted into a valuable manure.

"That the manure produced by this new system is quite as valuable as the best horse-litter; its effects are visible upon several successive crops; and it can be obtained with perfect facility at pleasure.

"That M. Jauffret supplied the committee with numerous and undeniable proofs of experiments, ranging over a period of nine years, in five communes of the department of the Bouches-du-Rhone, in which trials were made upon an extensive scale, on different kinds of soils, and on various seeds, plants, and trees. The success of these trials surpassed the most sanguine expectations, as has been attested, 1st, by the Academy of Aix, (annual public session 1835, at 38 and following pages of the report;) 2d, by the circular of the prefect of the Bouches-du-Rhone; 3d, by 38 certificates* from most respectable inhabitants and farmers of that department, founded upon repeated experiments made by themselves; and 4th, by the declaration of well-informed proprietors of the department of Vaucluse, who for years have attentively watched the trials of the Jauffret manure.

"That in order to convince themselves more thoroughly on the subject, the committee wrote, unknown to M. Jauffret, to some individuals who were most distinguished by their agricultural science, and who had given certificates to the inventor, and that their replies, which are annexed to the report, are of so satisfactory a nature, as to leave no doubt on the minds of the committee, of the importance of the discovery.†

"The committee enter into the following details of the process:

"By means of a cutting machine, the cost of which is about 600 francs (15*l.*) and which, after a careful examination, appeared well adapted for the purpose, three men and a horse can prepare 180 quintals, or 7,200 kilograms (about 7 tons English) of manure per day, and the machine is easily erected. Ten quintals of straw produced 40 quintals of manure, this is effected either by the addition of the lye, or by the fermentation dilating the material operated on.

"The Jauffret process admits of greater economy as to labor, for the wooden cistern, and the ingredients of which the lye is made, may be carried to the field which is to be manured, and the compost prepared on the spot; and thus the carriage of the vegetable matter from the field to the yard, and back again from the yard to the field, is

saved; the escape also of carbonic acid gas, one of the most valuable component parts of manure, which takes place during removal, is thus prevented. The inventor asserts, moreover, that he can vary the degree of fermentation, to suit the defects or qualities of different soils; and as he can raise the heat caused by the fermentation as high as 60 Reaumur (167 degrees Fahrenheit) his process has the additional advantage of destroying the germ of all noxious herbs, which might foul the land.

That in considering the process, the committee were struck with the advantage that might arise from establishing manufactories, not only on large farms, but near towns and villages, to which every cultivator might bring his refuse vegetable matter to be converted into manure. The cutting machine might be worked either by horse, water, or steam power.

"The Jauffret process will be advantageous not only to large proprietors, (by whom an expense of 600 francs (15*l.*) will scarcely be felt,) but it will be more important and useful to small farmers, who can cut their weeds by hand, and prepare a quantity as perfect as any made by the machine.‡ As to the conversion of earth into manure, any one can make it without the help of the machine invented by M. Jauffret, and the manure made from earth by this new process, is not less valuable than the compost. Thus, those who have no cattle to feed, may employ all their fodder for manure; others can render available weeds, briars, dogstooth, thistles, &c.; and those who have neither straw, fodder, nor weeds, can convert earth into manure, so that no discovery was ever more capable of easy or general application. The Jauffret process tends to supply agriculturists with new and powerful means of increasing their wealth, especially in the case of poor-land farmers, who usually find it difficult to obtain a sufficiency of manure."

* A printed copy of these certificates may be seen at Messrs. Thomas Gibbs & Co., Seedsmen and Nurserymen to the Hon. Board of Agriculture of England, and to the Board of Agriculture of Sweden, corner of Half-Moon street, Piccadilly, London.

† Mon. Gauthier de Vancluse, who is about to publish a new Atlas of Agriculture, says, (in print at Marseilles, 1832) "M. Jauffret, an intelligent farmer and acquaintance of mine, possesses exclusively the valuable power of converting, in less than a week, all vegetable substances whether dry or not, into dung of good quality, without spreading them as litter or even submitting them to the tread of cattle. The change is effected, as if by enchantment, by means of a lye, with which he sprinkles the straw, herbs, leaves, plants of all kinds, even woody stalks of a finger's thickness, previously dividing them to a certain extent by a very ingenious operation. Such is the action of the lye, that forty-eight hours after the matters are heaped, their fermentation becomes, as it were, volcanic: volumes of smoke announce the decomposition at a considerable distance; and a poor and spent soil may, without delay, receive, in the form of an excellent manure that which a week before could have done nothing towards rescuing it from a state of exhaustion."

Like all other interesting discoveries, this has

been the subject of fierce attack; but experience has vindicated the inventor. Following the example of many landed proprietors, I determined upon making trial of this important manure, and I declare it equal to that of well-fed horses. M. Jauffret asserts that he can at pleasure increase the dose, and even confer all properties required by the nature of the soil on which he uses it.

One single horse cart load of straw, or other dry material, produces more than two of good dung. The inventor charges 5 francs (2*s* 6*d*) for each cart load: probably to those who should effect the operation themselves, the expense would be diminished by one half.

The advantages of such a process are incalculable.

‡ Mons. Jauffret states, the machine necessary for a small farmer is only a barrel and a pail, and which can be carried with ease from one part of the farm to the other. It is set to work in the open air, wherever materials happen to be; thus the fields that are so distant as to be seldom manured, may by this manure be rendered highly productive. The mixture is made without fire, and every thing concurs to render it economical.

THE GRAIN WORM.

This insect has, within a few years, done damage, in this country, to the amount of millions of dollars; yet but very little attention has been paid to the subject by Agricultural Societies or legislative bodies, and individuals have generally been very remiss in their attention to it, though it is of the highest importance. We have before us many articles on this subject, but they are contradictory; it is not yet thoroughly understood, and until it is better known, different opinions will be advanced; and many will find, on further information, that their favorite theories are unfounded. We shall occasionally publish such articles as we think will be useful in aiding those persons who are endeavoring to learn the habits of these insects, and discover a remedy against their ravages. Great exertions will be made this year by many, to find some remedy against this insect, and we have no doubt that much good will result from the investigations and experiments that will be made. Every individual should endeavor to learn something new and valuable on this subject, and communicate it to the public. The following are extracts from a communication in the Montreal Courier:

The fly is about the size of a moscheto, but the body is rather longer, and the legs shorter; the body is of bright orange color, and the wing transparent, changing color according to the light in which they are viewed. I have examined them with a magnifying glass, and the body appears as if formed of rings, and coming to a sharp point at the extremity or tail. The body has very much the appearance of a wheat maggot when in a full grown state; the color is exactly the same.

The first day I discovered the fly this year was on the 29th of June; and on the 4th of July in the evening, I found them despoising their eggs in the ears of barley. The maggots produced from these eggs are now, and have been for the last two days, quite visible to the naked eye, and are nearly full grown. I have seen barley on the

14th that I believed to be more than half destroyed, or that has maggots in more than half the grains, whether it will be destroyed or not. The fly was last evening as active as on any previous evening stinging the wheat ears, and depositing its eggs; and from their numbers it is difficult to imagine how any wheat can escape. I have, with the glass, discovered the larvæ in the wheat glumes, and they have now both life and motion; in some of the ears they are visible to the naked eye. The fly remains concealed during the whole day about the roots, and does not come upon the ears until it is near sunset, unless it is very calm. Then perhaps twenty may be seen on one ear. I have used lime, which I scattered over the wheat while the dew was upon it, to such an extent that in the evening it appeared as if whitewash had been scattered over the field, but the fly was still as active after the lime was applied as previously. I scattered about fifteen pounds of snuff mixed with wood ashes over about an acre, and it was equally unavailing in checking the fly.

I had not sown any of my wheat this year it was so injured by the maggot, but purchased seed from a farmer which had not suffered by the fly last year, consequently it could not be the seed that produced the fly this season.—Last year I made use of powerful disinfecting liquor in preparing my seed wheat, so that it was impossible that any animalculæ which might have been concealed in, or attached to, the grain, could have retained their vitality, or produced the fly with me last year. I would farther remark, that my wheat was on new land never previously cropped, and partly surrounded by woodland and meadow.

I have planted potatoes this year where damaged wheat grew last year, and though several times ploughed, the fly appears about the young potatoe plants in countless numbers, at the same moment they did in the growing corn; and as the communication in your paper of yesterday stated that the fly remained in, or hatched in the straw, chaff, &c. of damaged grain, I observe that I did not make use of any dung this year to my potatoes, as the land was sufficiently fertile without it, therefore the fly could not be produced in the potatoe soil from manure made of the straw and chaff of last year's crop. I do nevertheless believe that the flies are hatched in ploughed soil. I laid down with grass seed last year a field of wheat that was greatly injured by the fly: I have carefully examined it, and could not discover a single fly among the clover and timothy growing upon it, though the wheat stubble is long and is not yet rotted.—Last evening the fly had disappeared from the barley, as it is now in too advanced a state to receive their eggs. I fear that extensive damage is done to the barley crop, though some of the grains on which maggots are found are not entirely destroyed, and the grain will soon be too hard for them to feed upon. Hence the injury may be less than the present appearance would indicate. It is not yet possible to calculate what may be the fate of the wheat crop; I fear that greater failure than in any previous year. Another week will determine the matter.

I know a farm that had not wheat grown upon it last year or this, and yet the fly has produced extensive injury in a barley crop now growing.

I may be well to be acquainted with all these circumstances.

Perhaps the only thing that the farmers can do, will be to desist from sowing wheat for two or three years, until the fly has been got rid of from their not having suitable food for their larvæ to subsist upon.

Though barley is not proof against them, yet I am satisfied that wheat is most suitable for receiving their eggs or larvæ and to serve for their food afterwards. The turgid or corn wheat of England is said to be proof against their ravages, and were we to try this wheat, it might succeed in Canada as a fall wheat. It is said to have a strong vigorous stem, and a large coarse grain. By sowing it early in the fall, the latter end of August or beginning of September, it might resist the severity of the winter. If we could grow a wheat that would be in ear the first week of June, it would be safe from the fly. I remarked last evening that the flies did not go upon the ears of the wheat that were shot out, but upon those now appearing, as if the first were too hard for them, or that they had already been infected with their eggs.

Burning the stubble upon fields that carried a damaged crop, might be of great benefit, provided the fire was to run all over the soil, otherwise it must be useless. By adopting this plan, lands that were seeded down, would necessarily have all the young grass destroyed.—*Yankee Farmer.*

WORKING COWS.

We have no doubt that many farmers who do not want cattle for travelling much on the road will find an advantage in working cows.—As this custom is not common among us, it would be at once opposed by many as inconsistent and unreasonable. In this respect it would be like many other improvements. There was a time when many farmers thought the only method to dispose of a large quantity of apples was to work hard in the fall and fill up their cellars with cider, and then work hard in the winter to drink it up. They would have laughed at the thought of wintering hogs in a thriving condition, or fattening them mostly on apples; but experience has taught them that apples are valuable for making pork, and that cider drinking is attended with trouble and expense and is injurious to health; and had we time we would show that many other improvements when first introduced were regarded as changes for the worse.

Why cannot cows work as well as mares that are with foal or have to nourish their offspring? Mares without injury to themselves or their young, perform considerable labor until within a month or two of their time of foaling; and they again labor in a few weeks after that time; and with kind and gentle treatment and good keeping, they and their colts are better than they would be if they were entirely idle. Look at animals throughout the wide creation and see how few among them are idle mothers.—Exercise is conducive to health and strength; and every animal, four legged or two legged, ought to take, at least, moderate exercise; it is conducive to their comfort.

Much more might be said on this subject by way of reasoning, but experience is the best and most convincing argument, and here it is. An intelligent and excellent farmer observes that he

found oxen to be the most unprofitable stock he kept, as it cost a great deal to keep them through the winter, and he had but little for them to do at that season; and he concluded to work cows as recommended in the *Yankee Farmer* a few years since; and from a few years' experience, he finds it one of the greatest improvements, by way of economy, that he ever made.

In 1836 he commenced, in the spring, working a pair of cows that had calved the January previous; they were four years old, of a large size. He did all his ploughing and other spring work with them—working them almost every day. They gave a good mess of milk during the spring, and it did not appear that their labor caused any shrinkage, excepting on two days when a colt that was under the process of breaking was worked before them, and caused them unusual fatigue.

In the summer he hauled his hay with them, and found them to answer every way as well as oxen. In the winter of 1837, in which the snow was very deep, he used his cows for breaking roads, and they frequently got into the snow so that it was necessary to shovel them out, yet they were not injured and were as good as oxen for this purpose. That year they calved in April.

Last fall he worked another yoke of cows, making a team of four, with which he ploughed, breaking greensward thirteen or fourteen days, besides ploughing old ground. He did all his fall work with this team—hauling rocks and wood, harvesting, &c. He has worked them this winter, hauling heavy loads of wood.

About two thirds of their food is straw and turnips, the rest hay. He says that cows are quicker and smarter than oxen, and will do as much labor according to their size, when kept in good condition, and are not so hard to break as steers, as all except one were perfectly kind after the third day. He has kept his cows very well and treated them very kindly, and every one must know that in working cows, this is of the greatest importance. Every animal should be treated with kindness, but harsh treatment of oxen would not be attended with so much injury as it would with cows. One of these cows is partly, and if we recollect right, mostly of the Durham short horned breed; she is an excellent worker and a good milch cow. Another farmer informs us that he knew of two cows being worked regularly as oxen, and worked hard too, from the time that they were calves till they were six or seven years old, and they were of a large size and very handsome: he understood that they gave a good mess of milk when well kept.—*ib.*

FARMING IN MAINE.—The *Kennebec Journal* says, a Mr. Oliver, of Kingfield, purchased of Gov. King about eighteen months ago a lot of land for a farm in that town, at the price of \$212, to be paid in four equal annual payments. Last season amongst other products he raised 240 bushels of wheat, which with the bounty, paid all the notes (or the whole cost of the land) and left him over \$100 cash on hand. How much better do young men do who go to the western States to get rich by farming? The case of Mr. Oliver is but a fair example of what every industrious young man may do in this State.—*ib.*

BLIGHT IN PEAR, APPLE AND QUINCE TREES.

There has been so much written, said and sung on this subject, that like the everlasting chess question, I can hardly think what I believe myself, and it seems from the intricacy of the cause, to be involved in the same impenetrable obscurity. Theory and speculation are about exhausted, and it is full twelve o'clock with the subject, and high time that observation and examination took the place of both.

I have been grievously afflicted with the blight, particularly on pear trees; and really it is too bad to watch and nurse a pear tree, and to put up with their perversity in coming into bearing, and then not only to find the fruit blasted, but the tree dying, beyond the power of relief, or hopes of resuscitation.

Now what is the cause? In the same of St. Michael, St. Germain, and the melting Virgaleuse, will not the lovers of that best of all good fruits set their noddles to work on this doubtful question, and trace the disease from its incipient stage to its crises, and set the world right on the subject beyond cavil or speculation.

This disease has had as many causes assigned for it as there are theories for the formation of the globe, and some of them as preposterous, and like Macbeth's witches, "come like shadows to depart."

Electricity at one time was indicted and found guilty of the crime, but I believe escaped punishment from being so subtle a customer.

The *tap root*, piercing the cold and ungenial soil downward to a redundancy of water, has been shrewdly suspected of the mischief.

Too rich earth, and highly manured soil, has also been suggested as one of the causes, whereby a *plethora* was produced, and more sap sent up than the leaves could elaborate, which becomes stagnant, and fermentation takes place.

Disease of the leaf, either by the slug or other insect, or by the honey dew, whereby the ability to elaborate the sap destroyed, and the sap becomes unfit for circulation.

Insects, minute animalculæ, are also charged as the secret and invisible destroyers, who perforate the bark and lodge in the cellular tissue, and destroy and sap the very vital of life and health; but it requires a glass equal to the one used by the author of the celebrated *moon hoax* to discover them, and in my opinion like that affair, equally a fable.

Another cause was broached by Mr. Goodsell, former editor of the *Genesee Farmer*, that it was a virus generated in the young fruit at the period of blossoming, or from some infection generated in a blasted fruit from some cause, and sent downward by the returning sap.

Now, Mr. Editor, I will even give you my opinion, and as I don't charge anything for it, I trust you will have the complacency to say, thank you, sir—or, thank you kindly—I am not particular which.

Since the theory started by Mr. Goodsell, I have been making observations on the progress of this disease, and have come to the conclusion that he is right; for I have never observed a tree to be affected with a blight, until it had arrived at the period of blossoming, and I have never known a blight to commence except where there was a

blighted fruit, or where it was evident one had dropped. Now whether the virus is engendered by the vitiation of the sap in the young fruit, which may have been destroyed and rendered imperfect by cold winds, rain, or other causes; or whether the disease and cause of death is occasioned by some derangement of the pollen, by the absorption of some deleterious substance; or by the adventitious contact of the pollen of the blossoms of other trees, imparting a noxious impregnation; or by the disposition by some insect of its *ovum*, which in passing through its changes, destroys and poisons the fruit, is a moot point, which he that is able to lay his finger upon, will be entitled to be ranked as rather clever, and I ask of your readers to make observations on these points:—*Whether a tree is ever affected before it comes into bearing and sets fruit—and whether it does or does not always commence on a stem that has, or has had, a blighted fruit upon it?*

I am perfectly persuaded that the tapped root theory is *tapped too low*, for a fine lot of trees were blighted last summer, which grew on the high gravelly bank of the ridge road, in a situation where no reasonable tap root would ever think of looking for cold stagnant water.

Quince trees during the last year were generally affected more or less, and many orchards of apple trees had many of their twigs singed.

It is an important inquiry, and worthy of the investigating acuteness of your most enlightened readers.—*Gen. Far.*

TOBACCO TRADE.

The Berlin *Spermscher Gazette* of the 23d of December last, contains a long and ably written article on the Tobacco Trade with the United States, in which this important subject is treated with reference to the expediency of the duties now paid on the commodity in some countries in Europe. The following history of the progress of the cultivation of this plant will be interesting to many of our readers, who will doubtless be surprised at the rapidity with which an article universally deemed noxious in its character, has gained upon the affections of the European world.

In 1622, the Colony of Virginia produced 20,000 pounds of this article, and in 1639, sixteen years afterwards, the quantity had so much increased that the Colonial Assembly passed a law that all the tobacco produced during that and the two previous years should be destroyed and burned, except so much to each planter rateably as would in the whole make 120,000 lbs. stripped and smothered, and that the creditors of the planters should receive 40 lbs. for every 100 due them. At the time of the breaking out of the war of the revolution, the quantity raised amounted to about 100 millions of pounds for four years, from 1772 to 1775 inclusive. During the whole war the amount exported did not exceed the exports of a single year previously. In 1783 the cultivation again revived, and in 1789 the product was 89,000,000 lbs. After this period the culture increased until 1810 '11, and the war of 1812 to '15, subsequently to which time, in 21 years, it has averaged 82,700 hogsheads or 99,318,000 lbs. annually for exportation. The exportation of leaf tobacco has remained the same for sixty years, except during wars in which the United States

has been engaged, or commercial embarrassments caused by wars of other countries. The surplus of 100,000,000 lbs. arising from increased production has been taken up by domestic consumption. Since 1816 the whole has fallen in value fifty per cent., the value being annually about \$6,000,000, to which is to be added the profits on sale in Europe and freights earned on transportation, which will give the sum transmitted to pay for the European wines, manufactures, &c., consumed in the United States.

In the year 1834, there were exported 87,979 hogsheads of tobacco, of which 35,658 went to Great Britain, 20,611 to the Hanse Towns, 11,011 to Holland and Belgium, 5,430 to France, and the rest to various parts of the world. Nearly 40,000 hogsheads are annually consumed in Germany, which are principally imported through the Hanse Towns and the Netherlands, as very little is imported through the Prussian ports, or the Baltic, or the Austrain ports, in the Adriatic.—Even the Austrian *regie* purchases its tobacco at Bremen.

The author of the article from which the above is taken endeavors, as we think successfully, to prove that inasmuch as tobacco forms one of the most important means by which America is enabled to pay for the manufactures received from Europe, the effect of excessive duties will be to drive away American purchasers and thus injure the European manufacturers. However willing our countrymen may be to enjoy the luxuries of the old world, provided they are permitted to pay for them with the products of our soil, they will not be so ready to pay excessive duties for the support of foreign governments. It would seem that these onerous exactions are only practised when the tobacco enters what is called in German the *Toll Verein* of Austrian customs, the rates of charge being, as alleged, moderate in the ports of Antwerp, Rotterdam, Amsterdam, Bremen and Hamburg. It is hoped that the measures lately taken by Congress will bring about a better understanding in regard to these duties, concerning which so many complaints exist.—*Balt. Amer.*

Valuable Improvements.—We were shown, a day or two since, several beautiful samples of cloth and carpeting manufactured at New Brighton; in this state, from the raw wool, without either spinning or weaving. The cloth was not so much intended as a sample of fine, as a good and strong material; and, in this particular, we unhesitatingly pronounce it superior to any thing we have ever before seen—and what is still a more important consideration is, that this cloth, we understand, can be manufactured cheaper by the new process, than in Europe on the old spinning and weaving plan. The carpet is beautiful—the body appears as tough as so much leather, and the figures are very rich; but we would not like to promise their durability, as they are merely stamped on. The greatest advantage of this carpeting, however, is yet to be told—it is this: that it can be manufactured and sold for about half the price that foreign and domestic carpets now rate at—qualities in all respects agreeing. This new mode of manufacturing woolen cloths is, as near as we can understand it, upon the same principle that bodies of hats are made—the wool is carded,

then felled, and pressed by machinery. It is believed that this plan of manufacturing will enable us to compete with England in the produce of woollen goods, and that it will finally supercede the old spinning and weaving plan.—*Harrisburg Chronicle*.

Mechanical Curiosity.—We were much gratified the other day by the inspection of a steam engine admirably simple in its construction, which Mr. Ruthven, of this city, has just fitted up in his premises at the north end of the Canongate. The way in which the engine acts is thus:—The steam issues from the boiler through a hollow axle into a hollow and flattened cylinder fixed by the middle to the axle aforesaid, and rushes out with its full force from two holes near the opposite ends and upon different sides of the cylinder. The consequence of the rush of steam against the air is to whirl the cylinder round with immense rapidity; on the same principle that a firewheel is caused to revolve by the rush of gaseous matter from the end at which it is ignited. The motion thus generated is of easy mechanical application to any required purpose. In addition to its simplicity and consequent cheapness, this modification of the steam engine possesses the great advantage of securing the full force of the steam; while in the engines generally employed a very large proportion of the force is lost by the condensation which cannot be avoided when there are various intermediate stages between the issue of the vapor from the boiler and its application to the purpose of generating motion. The simple contrivance which we have described has been known for some time, but has met with unaccountable opposition and ridicule among practical engineers. If any one still doubts of its perfect efficacy, he has now an opportunity of removing his doubts by witnessing it in busy operation on Mr. Ruthven's premises.—*Edinburgh Weekly Journal*.

Valuable Discovery.—The Richmond Enquirer of Thursday says:—"There seems to be no end to the mineral treasures of Virginia. Yesterday we heard of another discovery, which, according to the present appearances, is destined to prove of incalculable service.

The reader will recollect that during last autumn, we spoke of a rich vein of iron ore, which was in a course of exploration, on the south side of James river, near the coal pits, and from two to three miles of the river. The ore has been further opened; and we are happy to learn promises to be of great value. It is under the auspices of John Heth, Esq. and is immediately on the new rail road, which will soon be opened, from the coal pits to the river. But the discovery embraces a new object—a large rich bed of natural Coke, which is just below the iron ore, and is suspected of being in a large field, and of being near 17 feet thick.

The coke was first discovered by those who are engaged in laying down the rail road. They thought of burning it as fuel and the experiment has answered.

It is said that Professor Rogers has pronounced it natural coke—and we understand that Mr. Deane is about to try its virtues in his Iron Rolling Mill.

Should it correspond with the indications which have so far transpired, it will prove a source of great wealth to its worthy, liberal and enterprising proprietor, as well as advantage to the rising manufactures of Richmond."

Mining region of Missouri.—The St. Louis Argus states that the celebrated mountain of magnetic Iron in this State has been elevated to 350 feet above the surrounding plain, and is a mile and a half across its summit. The ore of which this mountain may be said to be substantially composed, yields 80 per cent. pure metal. If it be so magnetic as is said, what a stupendous battery this for Davenport's Electro magnetic machine! It would drive all the factories the parishes could hold, and all the steamers that could float on the great Mississippi. No engines, no fuel, no coal-mines would be wanted. What would become of Fuly and Mauch Chunk! In every direction for miles around besides iron ore, are found plumbago and sulphuret of lead, and five miles south is a magnificent pyramidal mountain of the micaceous oxide of iron, 300 feet high, and with a base of a mile and a half in circumference! Let that stand for Egypt's sake—a Pompey's Pillar in nature's flower garden. This pyramid is not in plates, but huge masses of several tons weight—yields also 80 per cent! Copper is also found in Missouri, and its wonderful lead mines all the world know. The "Pine Ridge" in this region furnishes that lofty timber in abundance, many of the trees being 90 feet high and 4 feet diameter. And Washington county is a perfect bed of metallic treasures—lead, gold, silver, copper, copperas, chalk, black lead and brimstone, cornelian and other precious stones, free stone, limestone, grindstone, and burrstone. St. Genevieve co. has numerous quarries of magnificent marble, and vast caverns of beautiful white sand, resembling snow, and much prized by the Pittsburg people in the manufactory of flint glass. A rail road is talked of from the mines to the coal region near St. Louis. When we contemplate the mineral wealth of our country we are lost in amazement.—*N. Y. Star*.

CURIOUS DISCOVERY.

Extract of a letter from a practical chemist, in London, to his brother, in this city, dated 6th January 1838: "An apparently most extraordinary discovery has been made by a Mr. Joyce, a gardener. It consists of a heating apparatus adapted for all purposes, without the production of any smoke or any smell—positively a production of heat alone. It is, as I have just seen it, contained in an Urn, the sides of which are so hot that it cannot be touched. It is moveable; may be taken into a carriage or into a room like a lamp, or in any other way. I have closely examined it and can discover no source of heat. The fuel, they say, will not cost three pence for twelve hours to heat a large room; and this heat may be raised to such a degree as to melt the vessel which contains it. The discoverer will not give any information, as he intends taking out a patent for all the countries in Europe where he can be protected, and disposing of them all simultaneously. If it is a humbug, it is a clever one. The heat will last for thirty hours without any renewal. The only conjecture I can form about

it is, first, that there is no fire whatever in the vessel, and no fuel consumed; secondly, that it is some chemical process; and thirdly, that it is produced by the action of carbonic acid gas, which is subjected to immense pressure, and thereby liquified or formed into solid carbonic acid, by which action an immense quantity of latent heat would be converted into sensible heat. All this is a mere surmise of mine. I can think of no other method but the condensation of some gas for the production of heat alone. The degree of cold produced by Thilorier, in making the converse experiment with solid carbonic acid, was 140 degrees below zero.

EXTENSIVE SALE OF IMPORTED STOCK,
At the Old Norton Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr. dam, (Layd Sarah) by Pilot; gr. gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, one sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcery, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.

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Notice of the report of the Rev. Mr. Coleman on the agricultural survey in Mass.—do. of the Geological survey in Penn.—do. of the communication of W. G. on lime burning—do. of a lime spreading machine—blight in wheat—rack heath plough—game law of N. Jersey—cost, &c. of lime burning—agricultural papers—Italian spring wheat—recipe for fistula—new process of making manure—the grain worm—working cows—farming in Maine—blight in pear trees—tobacco trade—Penn. manufactures—mechanical curiosity—valuable discovery—mining region of Missouri—curious discovery—prices.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	
CATTLE, on the hoof,	100lbs	7 00	8 50
CORN, yellow	bushel	70	72
White	"	75	76
COTTON, Virginia,	pound	10	12
North Carolina,	"		
Upland,	"	10	12½
Louisiana — Alabama	"		
FEATHERS,	pound.	45	50
FLAXSEED,	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's	"		
SuperHow. st. from stores	"	7 87	8 00
" " wagon price,	"	7 50	7 75
City Mills, super	"	7 80	8 00
" extra	"	8 25	8 37
Susquehanna,	"		
Rye,	"	6 50	
Kiln-dried Meal, in hhds.	hhd.	19 00	
do. in bbls.	bbl.	4 00	
GRASS SEEDS, wholes. red Clover,	bushel.	6 00	6 25
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	3 00	
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.		7 50
Slaughtered,	"	6 25	7 00
Hops—first sort,	pound.	9	
second,	"	7	
refuse,	"	5	
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	37	
PEAS, red eye,	bushel.		
Black eye,	"	75	1 00
Lady,	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	5 50	
Ground,	barrel.	1 50	scarce
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	85	90
Susquehanna,	"		none
TOBACCO, crop, common,	100lbs	2 50	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"		
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"		
ground leaf,	"		
Virginia,	"	4 50	9 00
Rappahannock,	"		
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 65	1 70
Red, best	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.	gallon.	33	
" in hhds.	"	34	
" wagon price,	"		30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 50	
To Wheeling,	"	1 75	
WOOL, Prime & Saxon Fleeces, ...	pound.	40 to 50	20 22
Full Merino,	"	35 40	18 20
Three fourths Merino,	"	30 35	18 20
One half do.	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this all, and which he will sell on moderate terms

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured	pound.	13	13½
Shoulders, do.	"	11	
Middlings, do.	"	11	
Assorted, country,	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"		
CIDER,	barrel.		
CALVES, three to six weeks old	each.	5 00	6 00
Cows, new milch,	"	30 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 68	
CHOP RYE,	"	1 50	1 62
EGGS,	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,	"	6 50	
Herrings, salted, No. 1,	"	3 00	
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,	"	5 75	
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	
Branch at Baltimore,	do	Farmers Bank of Virgi. 1½a 1½
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg, 1½
Banks in Baltimore, par		Petersburg,
Hagerstown,	do	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton,	do	Bank of the Valley,
Salisbury, 1 per ct. dis.		Branch at Romney,
Cumberland,	par	Do. Charlestown,
Millington,	do	Do. Leesburg,
DISTRICT.		Wheeling Banks, 3
Washington,		Ohio Banks, generally 6a 7
Georgetown, } Banks, ½ p.c.		New Jersey Banks gen. 5
Alexandria,		New York City,
PENNSYLVANIA.		New York State, 3a 4
Philadelphia,	par	Massachusetts,
Chambersburg,	½	Connecticut,
Gettysburg	½	New Hampshire, 3a 3½
Pittsburg,	2½	Maine,
York,	½	Rhode Island, 3a 3½
Other Pennsylvania Bks. 2		North Carolina, 5
Delaware [under \$5] 4		South Carolina, 6a 7
Do. [over 5] 1½		Georgia,
Michigan Banks,	10	New Orleans,
Canadian do. 10		

ROBERT SINCLAIR, Jr. & CO.

Light street, near Pratt street Wharf,

OFFER FOR SALE, an extensive assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and SEEDS, comprising all that are required to stock the most extensive plantation. Particular attention is directed towards the manufacturing department, where the most competent workmen are employed and durable materials used.

The assortment of PLOUGHS is large and various, among which are the Double mould board, Sub-soil, Self-sharpening, Improved Davis, &c.

WHEAT FANS—Com. Dutch, Crank Shake, and Watkins' Patent.

CORN SHELLERS—For manual and horse power, warranted to shell 2 a 700 bushels of corn per day.

CORN AND COB CRUSHERS—For breaking the cob in suitable size for feeding stock.

CYLINDRICAL STRAW CUTTERS—of these there are several sizes. The late improvements made have rendered them the most perfect and effective Straw Cutters in the country.

THRASHING MACHINES and Horse Powers.

CULTIVATORS, for cultivating Corn, Tobacco, &c.

DRILL and SOWING MACHINES, for drilling vegetable and grass Seeds.

VEGETABLE CUTTERS, for slicing turnips, mangel wurtzel, pumpkins, &c.

HARROWS—Expanding, Com. Square and Diamond shape.

GREEN'S PATENT and common DUTCH STRAW CUTTERS.

Grain Cradles and Grass Sneaths, with warranted Scythes attached, Sickles, Scythe Stones, Grain and Hay Rakes, Hay and Manure Forks, with 2 a 6 prongs, Ox Yokes, Grubbing Hoes, Docking Irons, Ames' Spades and Shovels, cast steel Axes, Bramble Hooks, Hay Knives, Box, Pruning and Sheep Shears, Grass Hooks, Pruning Knives, Children's Spades, and various other Garden Tools.

Merchants wishing to purchase Ploughs and Castings to sell again, will find it to their interest to examine our stock, being the largest and most general assortment in this city, and for sale on liberal terms.

GARDEN & FIELD SEEDS—Just received from Europe, and from the Clairmont Seed Gardens near this city, an extensive assortment of Garden and European Field Seeds, warranted fresh and genuine, viz.

French Sugar Beet Seed, Mangle Wortzel, Ruta Baga, superior Beet and Radish Seeds, early and late Cabbage Seed, 30 kinds early and late Peas, bunch and pole Beans, Hybrid and other Turnip Seeds, Cauliflower and Broccoli; Scotch Kale, Parsnip, Carrot, Cucumber, Lettuce, Onion, Summer and winter Squash, Melons, Leek, Celery, Ockra, Salsafy Cress, superior assortment of Flower Seeds, Herb Seeds, etc. etc.

FIELD SEEDS—English and Italian Ray Grass, Trefoil, Burnet, St. Foin, Lucerne, white and red Clover, green and blue Grass, early Potatoes, Gama Grass Roots, Baden and Mercer Corn, Italian and Tuscany Wheat, Timothy, Herds and Orchard Grass, Millet, etc.

TREES AND PLANTS supplied at the shortest notice from the Clairmont Nurseries, near this city.

Wanted, prime lots Seed, Grain and Grass Seed.

FARMERS' REPOSITORY OF AGRICULTURAL IMPLEMENTS AND EASTMAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobacconists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as usual. Elliott's Horizontal Wheat Fans, and Fox & Board's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On hand, a few Patent Lime Spreaders, Horse Powers, &c. &c.

Also just received, a fresh supply of Landreth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,
Pratt street, Baltimore,
Between Charles & Hanover sts

feb 20

A DURHAM BULL FOR SALE.

UNCAS, a beautiful white Bull of the improved Durham short-horn breed, 3 years old, will be sold a bargain.

Applications by letter to be post-paid. Address
EDWD. P. ROBERTS, Baltimore, Md.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 50.

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Vol. IV.

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, APRIL 10, 1838.

CORN AND CORN PLANTING.

As the period for corn planting is at hand, it may not be amiss to remind our readers that five acres of land well prepared, manured and tended, will produce more good corn than ten, indifferently prepared, scantily manured, and slovenly cultivated. Than corn, there is no crop which pays better, when its culture is properly conducted, nor is there any which repays labor more grudgingly under opposite treatment, or punishes neglect more signally. With respect to the best manner of culture, the mode and method can be easily and briefly pronounced. Although it will grow in any soil under good management, it delights most in sandy or light loamy soils, and requires that the ground should be thoroughly pulverized before planting, kept clean and well stirred from the time of being planted until laid by. Indeed, if a corn-field be anywise extensive, the harrow, the plough, and the cultivator, may find constant employment during this entire interval, as there is no truth more universally admitted, than that the cleaner the corn-field is kept, and the more open the ground, the greater certainty there is of making a good crop. So great is the difference between the yield of a cleanly tended field, and one that is suffered to grow up in noxious plants, that an indifferent soil which receives proper attention, will produce more than the very best land if neglected. If weeds be permitted to grow up and encumber the earth, they rob the corn plants of the nourishment essential to their growth, keep the ground so hard, that the dews are prevented from sinking into the earth, and are exhaled by the sun without imparting their rich and fertilizing properties to the soil, and thus is the corn robbed of one of the most powerful agents in promoting its growth, and the farmer deprived to an injurious extent of his profit.

With respect to the time of planting, it is impossible in a country like ours, of such variety of climates, to fix upon any particular period; a

few hundred miles make a difference of five or six weeks; for while the planter in the south in many parts can get in his corn in the beginning of March, or earlier, those of the north cannot do so till the middle of May, and, indeed, in some instances till June. But though circumstances forbid the arbitrary prescription of a day, it may be assumed, as the dictate of prudence, that it is always safest to get it in at the earliest possible period, and we, therefore, recommend to all to seize the first opportunity to get through with their planting.

DUTTON CORN.

This variety of corn, as many of our readers are aware, has been the favorite corn of most of the farmers of the eastern and northern states for several years; nor has it attained its popularity without merit; for besides being an early kind, it is, under favorable circumstances, a productive one, averaging, according to the skill of the cultivator, strength of soil, and goodness of the season, from fifty to a hundred bushels to the acre. From its diminutive growth, one not acquainted with its yield, would not be disposed to view it with a favorable eye; but notwithstanding its want of altitude, it is a generous bearer, and one would be struck with wonder that stalks so small could support ears of such comparatively large size; when we say this, we do not mean to be understood as desiring to convey the idea that the ears are large except in relation to the stalks whereon they are grown. Each ear, however, of well developed growth, will yield half a pint of grain, and when it is considered that each stalk upon good ground, well cultivated, will yield two good ears, and that it will bear being planted four stalks in a hill, 3 feet apart, it may very readily be conceived that its product is by no means despicable.

Planters in the middle, southern and western states, who make corn their principal crop, and who rely upon fodder as the main supply of provender for their stock, would of course be loath to adopt this variety for their general crop; but even these, would find it to their advantage to plant it in part, for by so doing they would be able to have several weeks more to get their ground ready, as it may, indeed, be planted as late as the 10th of June, with a certainty of securing a crop.

Last year we did not get our last patch in until the 2d and 3d of June, and off of 1 acre and 10 perches made 74 bushels—nor was this all; for we had the crop housed on the 27th of August, being only 87 days from the time of planting; and we hazard nothing in saying, that, had we been able to have done it justice in its culture, its product would have exceeded a hundred bushels.

CLOVER AND PLASTER.

We are happy to hear that the benefits from the use of these two *hand-maids* of agriculture, have been so strikingly conspicuous of late among the farmers and planters of the lower counties of the western shore of this state, that the orders for them in this market the present season have been double in amount what they were last year. This looks well, and proves conclusively, that the spirit of improvement is abroad.

LIME ESSENTIAL TO THE GROWTH OF WHEAT.

Mr. Charles T. Jackson, the Geologist of the State of Maine, in a letter to the Rev. Henry Colman, has this remark, which goes to confirm the opinion that a minute portion of lime is sufficient to promote the growth of wheat in soils, and that it is also essential to the production of this grain.

"I find by chemical examination of several remarkable soils, that a very minute quantity of carbonate of lime, viz: from 1 to 2 per cent. is amply sufficient to render them capable of bearing heavy crops of good wheat. I am also satisfied that a soil is incapable of producing wheat of good quality if it does not contain carbonate of lime; for this substance is an essential ingredient of this grain."

A GOOD MOVEMENT.

We are highly gratified to hear that the *Grand and Petit Jurors* of Baltimore County Court, at the present term, have taken the incipient steps to form an *Agricultural Society*. This is as it should be, and we tender to the patriotic members of those bodies the undissembled homage of our gratitude, as from their attention to a most important though neglected interest, they deserve all praise. The influence of their happy example,

will not, we are certain, be lost upon the Jurors of other counties, and we shall, therefore, look forward with the fondest anticipations to a speedy realization of those benefits which must inevitably flow from a measure so eminently calculated to promote the interests, and increase the comforts of those engaged in the pursuits of husbandry.

Time of sowing Spring Wheat.—The editor of the *Yankee Farmer*, in an article on the time of sowing Spring Wheat, makes the following observations upon the subject:

"Some writers recommend sowing wheat very early or very late to prevent injury from the grain worm; but very few recommend early sowing for this purpose; and it is not generally considered that early sowing will be a remedy against this insect. Late sowing was last year practised by many farmers with various success. The time of sowing late was usually about the last of May or first of June. The grain-worm did not injure the late sown wheat, as the season for the fly's committing its depredations was past before the wheat was in blossom, so as to be liable to injury."

Quantity of Spring Wheat to the acre.—If the ground is very good, from 4 to 5 pecks is the quantity, as the wheat will tiller more; if it be thin from 7 to 8 pecks to the acre.

Mode of preparing Spring Wheat.—After floating off all the light grains and extraneous substances, soak the seed for 12 hours in a strong pickle, then drain off the pickle, and stir in as much newly made white wash as will cover the grain, say a quart to a bushel. Immediately after this latter operation, the seed must be sown.

Spring Wheat, south of New York, may be sown any time during the month of April, or early in May.

USEFUL RECEIPTS.

CURATIVE OF CATTLE.

For the cure of Murrain, or Plague.—Take of the herbs *angelica*, *rue*, *life-everlasting*, *calandine*, *yarrow* and *marrows*, each a handful, chop them up fine; then add of tar a gill, soap 4 oz., salt a handful; make these into an electuary, and give a ball the size of an egg for a dose, repeating it every two hours until it be convalescent, then intermit the dose every four hours until the cure be effected. If your beast be attacked in the field put it into a shed or stable, which should be

fumigated by sprinkling chloride of lime over it, and keeping a bottle with a few ounces of it hung up in the stable uncorked. The noses of all the other cattle, as well as those which are sick, should be smeared with tar. Keep the stalls and stables clean. If a small quantity of tar were placed in the corner of each manger it would be well.

Another.—A Virginian informs us that a friend of his cured a valuable cow in the last stage of the bloody murrain by simply giving her two doses of sugar, of a pound each, mixed with water.

An unguent for a sore.—Take of hog's lard 6 oz., honey 1½ oz., beeswax and rosin each ½ oz., and raw turpentine 1 oz. or ½ gill spirits turpentine, place the whole over a slow fire, stir well till they are melted thoroughly. Anoint the part three times a day till the cure is effected, taking care to wash it previous to each application with castile soap and water.

General drink for a cow or horse when sick.—Take 4 cloves of garlic bruised, a quart of new milk, three table spoonsful of tar, three table spoonsful of sweet oil, let them infuse for some time, and then give the whole at one drink.

To restore the appetite.—Take of *rue*, *centaury*, *featherfew*, *horehound*, *sage* and *salt*, a handful of each, boil the whole for 15 minutes in 3 qts. of beer or ale, then let it cool and strain the liquor off, give a pint at a drink for five successive mornings, not permitting the beast to drink until evening. If the animal's bowels should be costive, give it a quarter of a pound of epsom salts dissolved in a pint of water, after which let it have warm nourishing messes for a few days.

MODE OF MANUFACTURING BEET SUGAR.

Dr. Hall, of Northampton, Mass. has furnished the editor of the *Courier*, with the following method of making beet sugar; and as it is unencumbered with the useless verbiage of the plans as described by foreign authors, it will, we are certain, prove acceptable to the general reader.

About 100 lbs. of beets having been washed, and the small roots and defective portions removed, they were reduced to a pulp by means of a grater* made by fastening sheets of tin, which were perforated as for common graters, to a cylinder turned by a crank, a box being placed on the top to contain the beets. The pulp was then put into a linen cloth, and the juice expressed—five gallons were obtained. (Six or seven might have been procured with proper care.) The juice was put into a boiler and before heat was applied 1½ oz. (by weight) of sulphuric acid at 66° mixed with three times its weight of water—and 1½ oz. of lime (weighed before it was slacked) slacked

with hot water and diluted to the consistence of thin cream, were added and mixed quickly and thoroughly with the juice. Heat was then applied, and the temperature of the juice raised in a few minutes to 190° Fahrenheit's Thermometer. One or two oz. of coarsely powdered animal carbon (bone or ivory black) and the white of one egg beat up with a portion of the juice were then added and well mixed—the heat was then withdrawn, and the juice, in a few minutes, from being thick and black, became clear and nearly transparent.

It was then poured off—(the animal carbon, lime, and other impurities falling to the bottom of the boiler) into a clean vessel to be concentrated, and was reduced by boiling over a slow fire to the consistence of thin syrup. Three ounces more of animal carbon and the white of another egg was now added for the purpose of clarifying the juice still more, and removing in part the flavor of the beet—the boiling was continued for a few minutes, and the syrup then filtered through a piece of flannel fitted to a frame. This process being completed, all that remained was to concentrate the syrup so that it would crystalize.

This is the most delicate and essential part of the process, for deficiency or excess of boiling will prevent crystalization from taking place, success will depend on the tact of the manufacturer. On the first trial the directions laid down in the books were closely followed, and the temperature was raised to 90° of Reaumur's thermometer, i. e. about 234° of Fahrenheit, and although the process was conducted with care, the syrup was burned and of course lost. On the second trial more confidence was placed on the evidence of the senses to ascertain when the syrup was sufficiently reduced, and more successfully. Having set the whole aside in an earthen vessel, after a few days small crystals (grains) of sugar were found deposited on the bottom and sides of the vessel. These gradually increased until the quantity deposited was 3, 4, or 5 per cent., (no accurate estimate can be made, as much of the syrup was lost in experimenting.) The molasses was then poured off, and that still adhering to the sugar allowed to drain off through a coarse linen cloth placed over the mouth of the vessel containing it, the whole being inverted and placed in a position where the temperature was from 70 or 80 or 90° of Fahr.

The sugar was left in its raw state, partly because it was difficult to refine so small a quantity—and partly because it was thought advisable to leave it in that form in which it could be most easily obtained.

*A cylinder with saw plates placed as described by Mr. Church in his treatise on Beet Sugar would be far preferable.

ITALIAN SPRING WHEAT.

The last "Cultivator" has the following paragraphs:

"The testimonies in favor of this grain multiply on our hands, although they were before amply sufficient to establish its reputation."

"Levi Hopkins, of Sennet, Cayuga, from six bushels of seed sown on the 10th of April last, on 5 acres of sandy land, threshed and cleaned up

202 bushels. The sample sent us is beautiful—Mr. H. had 16 acres in winter wheat adjoining, which was much injured by rust, and produced less than the 5 acres of Italian.

“A. B. Clark, of New Hartford, Oneida, has raised the Italian wheat three years, twice successively upon the same field, without manure, (bad husbandry,) and obtained the first season 25, and the latter 30 bushels per acre. Mr. Clark also sowed three acres of Siberian on soil similar to that sown with Italian, and the product was 20 bushels to the acre. These facts are sent to us by J. H. of Oneida, who adds, that “a great deal of the wheat lately taken to Albany, and called Italian, is not genuine.”

METHOD OF RAISING WHEAT SEVERAL YEARS IN SUCCESSION ON THE SAME LAND.

Mr. Edmund C. Millett, of Minot, observes that he purchased a farm a few years since, that had been running down for 20 years, and as he could not at once obtain manure enough to improve the whole of the farm, and as he wished to raise wheat on more land than he could prepare in the usual manner, he followed the method of improving his land by clover, as recommended in the 1st volume of the Farmer. Two years ago last spring he commenced sowing about eight pounds of clover seed to the acre with his wheat, and as soon as the wheat was harvested, he ploughed in the clover and stubble, and last spring he ploughed the ground again and sowed wheat and clover as before, without any manure. When he harvested the wheat he kept what grew on four rods less than half an acre by itself, as it was the Black sea wheat, a different kind from the rest of his crop; the produce was 18½ bushels. The other kind of wheat on the same ground was a good crop, but being harvested with several acres grown on land differently prepared, the produce was not ascertained. Mr. M. says that he shall manage a part of his land in the same manner for years, and see what the result will be; he thinks it will be favorable. He intends to get a cultivator and work his ground with that in the spring, as it will be cheaper than ploughing, and he can loosen the surface without disturbing, so much, the stubble and clover when it is well ploughed under.

Plaster sown with clover would increase the crop on most soils, and on that account benefit the succeeding crop of wheat, but whether a very rank growth of clover would injure the crop of wheat with which it grows, or not, we cannot say; it is a good subject for experiment. We select the following remarks:

Experience has demonstrated that when the sulphate of lime, or plaster of paris is applied to soils, that it increases the growth of clover, and that when clover grown upon the soil is mixed, either by ploughing in the whole crop or by turning under clover stubble, that it prepares such soils for producing wheat in greater perfection than when manure is applied from the yard.

It has been by pursuing this course of tillage, or rotation of crops, that many lands in western New York, which by nature were thin, light soils, and which did not when first cultivated, produce more than fifteen bushels of wheat per acre, have been made to produce from thirty to forty bushels—How long the fertility of lands thus managed

will continue to increase is unknown, but thus far our fields which have been cultivated the greatest length of time, where attention has been paid to rotation, produce not only the greatest quantity but the best quality of wheat.

Where fields are clear from stumps and stones so that they can be ploughed deep and regular, and where proper attention has been paid to seeding with Timothy and Clover, many prefer turning clover either in crop or stubble under and allowing it to remain working the soil lightly with drag and rollers. In this way it is thought the greatest advantage by the preparatory crop is realized.—*Yankee Farmer.*

SETTING MILK FOR CREAM.

Mr. Tucker—Having found much satisfaction in reading the communications of others in the Monthly Genesee Farmer, I have concluded to offer some of my experience in the great field of Agriculture. And first, I will state my plan in setting milk for cream, which I consider much more convenient than the common way. My first education in this respect, was, of course, to set the milk in broad shallow pans, so that it would stand thin as well as cool; but about ten or twelve years ago my milk became too plentiful for my pans, and I was driven to the necessity of setting my milk in high earthen pots, such as we use to keep cream in. When we commenced this operation, I told my wife that we should get but little cream from those pots; but we had no other way to save our milk. But to our surprise we found the high pots to produce as much cream in proportion to the quantity of milk as any other vessels. Encouraged by this result, we adopted the plan of setting our milk in common 8, 10 or 12 quart tin pails, which would occupy but little room even for the largest dairies. We found these pails much more convenient, being much easier skimmed, and easily removed from place to place by the bails. Ever since we commenced this practice, our butter has commanded the highest price in market, and we have proved beyond all doubt that the cream will rise as perfectly 10 or 12 inches deep as in any other way.

Another circumstance it may be proper to mention. Having found some difficulty by reason of some of my cows in the latter part of the summer refusing to give their milk freely in the morning, so that I could get their milk but once a day, which dried them up very fast, I sought for a long time for a remedy by reading and conversing with my neighbors, but no remedy could I find, until at length, instead of salting my cows twice a week, I furnished myself with a box about six inches square in the clear, into which I put a handful of salt, and took it every morning with my pail, letting the cow partake of the salt while I was milking. I have continued the practice, salting all my cows every morning, and beside effecting the cure of their holding up their milk, I find that they give an increased quantity; so that I consider myself richly rewarded for the extra trouble.—*Genesee Farmer.*

REMARKABLE BENEFIT FROM GYPSUM.

From the Genesee Farmer.
Messrs. L. Tucker & Co.—Please inform our friend, the Plough-jogger, that Agricola has stated nothing but the truth about the 14 acre lot—

The lot is situated about a mile east of Lansingburg, on the Hudson, in Rensselaer county; and the principal facts stated by Agricola are well known to more than a hundred credible inhabitants of that village at the present time.

The land was originally as poor as self-righteousness, and for fourteen years it scarcely afforded pasture for one family. It was then ploughed five times, harrowed five times, and at each ploughing and harrowing, the stones were picked off, and sowed in wheat and clover, and plastered with one and a half bushels of plaster to the acre. In sowing the plaster, one piece was omitted through mistake, and this land could be seen from the Mohawk falls, four miles distant; it was covered with stunted clover and mulleins, while the land adjoining was covered with clover three feet long. It was afterwards divided into four acre lots. Agricola dug the post holes and set the posts, and afterwards took from one lot six hundred and fourteen cart loads of stone, and the three lots were covered with stone at least three inches all over the surface. There is no mistake about this as Ulmus would say—for I know it by feeling, and feeling is the naked truth.

Now, why was the land omitted in plastering covered only with stunted clover and mullein, while the adjoining land was covered with a luxuriant growth of clover? The land originally was very poor, and I should think no stimulant could promote such luxuriance, for twelve years, unless it was a powerful agent and permanent in its effects.

Is it not possible that the plaster operated in attracting the vegetable food from the atmosphere? It certainly could not find it in the earth. When manures, either vegetable or animal, are buried in the earth, they are slowly resolved into carbonic acid gas, which is absorbed by the earth, and yielded to the future crop by degrees, and in such portions as the capillary vessels can take in. The carcass of a dead animal, grass or weed, after decay on the surface, we all know, do little good to the crop—the virtue is blown away by the winds, and is lost to vegetation, but if buried in the earth at a proper depth is yielded slowly, and the plaster of paris may very possibly have an agency in retaining this vegetable food near the capillary vessels of the plants, so that it can be taken in and assimilated. I think if the Plough-jogger will consult his reason, he will guess that plaster may very possibly do good without stimulating the earth. AGRICOLA.

Potter, Aug. 29, 1837.

From the Massachusetts Agricultural Commissioner's Report.

THE PRODUCT OF ONE AND A HALF ACRE.

The products of an acre and a half in a garden the present season, are worthy of notice.

The land was manured with eight cords of manure to the acre, and there have been grown on it for sale, and to be sold, as follows:

3,500 bunches of Onions, at 5 cents,	\$175.00
45 barrels of beets, at \$1.50 per barrel,	67.50
Cabbages sold,	100.00
24 bushels of Parsnips,	10.50
2 “ Beans,	4.00
10 “ Potatoes,	6.67

\$393.6

Besides a supply of vegetables for family use from the same garden.

The establishment with which the last account is connected presents one of the most beautiful examples of persevering industry, and admirable economy and management, to be met with in our industrious and frugal community. The individual began his married life with only \$500, which was the dower of his wife. He has never been the owner of more than 10½ acres of land, but has often hired land for improvement. His whole and exclusive business has been farming. He has been blest with ten children, of whom seven are sons, and all of whom have been brought up in habits of useful industry, and had the advantages of a useful education. His house is handsome enough to satisfy any reasonable ambition; and his out-door and in-door establishments patterns of neatness and order. He has all the needed comforts and luxuries of life; and in property may be pronounced independent. The habits of such a family are in themselves a fortune. He and his two sons have this year cut and cured 75 tons of hay; and better hay is not to be found.

MANAGEMENT OF SHEEP IN WINTER.

I have frequently thought that an open December, which is so often wished for by the farmer to save his winter's supply of hay, is more prejudicial to his sheep, when they ramble over the fields, and to his own interest, than he is generally aware of. It would certainly comport more with real economy, if he were to bring up his sheep by the 10th of December into winter quarters, even if the weather should remain warm and the ground uncovered. If they lose flesh at this time they cannot regain it until spring, and the mortality which sometimes costs flocks of sheep, is imputable to this cause.

Sheep in winter should have sheds; the preservation of their health requires this indulgence, and nature prompts to it. Let me ask, do they remain in the open air in a storm? No—they as instinctively run to their covering as a man does to his house, and if they do not require it quite as much, they appear as grateful for the shelter. For a flock of poor sheep a protection from the weather is all important. Those in good condition do not so much want it, as they have a better coat both of flesh and wool; but for them it is likewise useful, and a good farmer will not omit to give all the requisite shelter.

As soon as sheep are brought into the yard, the different kinds of ewes, lambs and wethers should be carefully separated and kept during the winter apart. It is important that those in one yard should be as nearly of a size as practicable; for by being so, there are no strong ones among them, to drive them from their provender. All will feed alike and do well. The flocks ought likewise to be as small as we can conveniently make them. It is an invariable rule that a small flock does much better than a large one, even if both, according to their number, are fed equally well. If the flocks in each yard can be reduced to between fifty and one hundred, so much the better; and it is a great desideratum to make them as few as fifty, if it can in any way be effected.—It is likewise necessary to have a separate yard for old and poor sheep, and if there are any in the t do not subsequently do well, they

should be removed into what is commonly called the hospital. These hospital sheep, by being few in number, having a good warm bed, a sheaf of oats, or a few screenings from under the fanning mill, once a day, will soon begin to improve and do well. I have had my hospital sheep in better condition with this care by spring, than any other flock, and I must say that for the last three seasons, my sheep were in a better condition when I turned them out of my yard in the spring, than when I put them up in the beginning of winter.

Sheep ought to be rather sparingly than sumptuously fed, three times a day, out of racks, to prevent them from running over and trampling on the hay. As soon as one is seen in any of the flocks to become thin, it ought to be removed at once into the hospital, where it will be better fed. If you neglect to do this, soon it will be too late, and you will suffer loss; for a sheep once reduced to a certain point cannot be recovered. It is good to give them a feeding of straw or pine tops, if you please; it invigorates their health, and makes a change in their food. They ought all to be daily watered, and if your hay has not been salted, they ought to have a lick of salt occasionally. By adopting these rules, you will save all your sheep; or you will not lose more of them than you would of the same number of horses and cattle. They will have no disease among them. I have often thought of an observation made to me by an experienced wool grower, from whom I asked for information of the diseases of sheep; he answered: "What have you to do with the diseases of sheep—take care of them and you will have no need for remedies." This observation struck me as strange at the time, but subsequent experience has amply confirmed it.—*Dr. Beekman.*

SCRATCHES.

The scratches is a disease which soon places a horse in such a situation as to render him unfit for any kind of service. When it is permitted to run upon a horse for any length of time without any remedy being applied, the ankles and legs swell very much, and lameness is produced in so great a degree, that he is scarcely able to move.

Scratches are produced from many different causes: hard riding, dirty stables, legs left wet at night without rubbing, standing in his manure, or mud, where he is confined in the stall, &c. Although much inflammation may appear, and the disease discover much inveteracy, the cure is not difficult.

Remedies.—No. 1. Remove the horse to a clean stall; with strong soap suds wash his legs and ankles nicely; clean out his feet; then wash every part inflamed or sore in strong copperas water, twice a day until the cure is performed: take half a gallon of blood from the neck vein, and give a mash twice a week, of 1 gallon bran, 1 teaspoonful saltpetre, 1 tablespoonful powdered brimstone. Great attention should be paid to the cleanliness of the stable.

No. 2. After the horse is placed in a clean stall and his legs and ankles washed with soap suds, take of blue stone 1 ounce, alum 4 ounces, to which add half a gallon strong decoction of red oak bark, stir them together until the alum and bluestone are dissolved; then wash the cracks, sores, and inflamed parts, twice a day, and the

cure will be effected in a very short time. Light or green food would be preferable to any other, for a horse thus diseased, until a cure is performed.

No. 3. After washing the legs and ankles with soap suds, take one table spoonful powdered brimstone, one do. lard, mix well together and anoint the sores and parts inflamed twice a day. A horse will get well much sooner confined in a stall, than by running at large.

No. 4. Boil poke root to a strong decoction, and bathe the ankles twice a day. In all cases a clean stable will aid you much in making a quick cure of the scratches.

STRAINS.

Strains, in whatever part of a horse, produced from running, slips, blows or hard riding, are the relaxing, overstretching, or breaking the muscles, or tendinous fibres.—A strain, unless uncommon, may be cured in a short time, by applying the following remedies:

No. 1. Take of sharp vinegar 1 pint; spirit of any kind, half a pint; camphor one ounce; mix them well together, and bathe the part injured twice a day; a piece of flannel wet with the mixture, and wrapped around the part, will be very beneficial; and from the neck vein take half a gallon of blood.

No. 2. Take of opodeldoc a piece the size of a marble, and rub it on the strained part with the naked hand, until the hand becomes dry, twice a day; should the injured part resist both these remedies, you may conclude the injury is a very serious one, which nothing but time can relieve, and the horse must be turned out upon grass a sufficient length of time for nature herself to perform the great operation.

MANGE.

The mange in horses is a disease of the skin, which is generally rough, thick, and full of wrinkles, especially about the mane, tail, thighs, and the little hair that remains on these parts stands up very much like bristles.

The ears and eye-brows are sometimes attacked, and in a short time are left quite naked. The mange is an infectious disease: indeed so much so, that if a horse is carried into a stable where one that is mangy has been in the habit of standing, he will be almost certain to take the infection, unless the litter has been removed and the stable properly cleansed and aired. Proper attention will make the cure easy.

Remedy.—Take of powdered brimstone and hog's lard an equal quantity; mix them well together and anoint the part affected twice a day, bleed plentifully and give two or three mashes (composed of bran, sulphur, saltpetre, and sassafras) within a week, by which time a cure will be performed.

A clean stable and nice bed of straw will aid much in accomplishing the object in view.

TO DESTROY VERMIN IN CATTLE.

The following is an extract of a letter from our friend, *Edward Garrigues*, of Darby, Pennsylvania:

"Observing some observations relating to destroying vermin on cattle, I am also induced to re-

mark, that a cow, much injured thereby, was cured immediately by rubbing down the spine, from head to tail, with Coe Indicus, or rather a decoction thereof, which produced an entire new coat of hair, and changed the appearance of the beast so much for the better, that the former owner would not have known her only by the mark of white on her hide."

AGRICULTURE AND USEFUL ARTS.

HOUSE OF REPRESENTATIVES OF THE U. S.

MARCH 5, 1838.

Mr. RANDOLPH, from the committee on Agriculture, submitted the following

REPORT:

The Committee on Agriculture, to whom were referred so much of the report of the Commissioner of Patents as relates to agriculture, and also a resolution of the House of Representatives of March 5, 1838, on the same subject, report:

That they have had the same under consideration, and have come to the unanimous conclusion that some legislative action in the premises is imperiously demanded. Agriculture, manufactures, and commerce, have been considered the three great interests of our country; yet it is a strange and singular fact, that whilst millions upon millions of the public treasure, drawn in a great measure from the agricultural portion of the community, have been expended to protect, preserve, and promote the interests vested in manufactures and commerce, scarcely a dollar has been appropriated, either directly or indirectly, to advance the interests of agriculture: and this fact is the more striking when it is considered how large a majority of our whole population is engaged in the cultivation of the soil, and that probably eight-tenths of the Representatives in Congress are elected by that most worthy and substantial, yet most unobtrusive and retiring class of our citizens. The committee make these remarks in no unkind feelings towards the commercial and manufacturing classes of our community; but, on the contrary, they regard them and their efforts to elevate the character and promote the interests of their country as worthy of all praise: and whilst they complain that so little has been done for the interests of agriculture, they would by no means intimate that too much has been done for our manufactures and commerce; yet the committee would draw from these facts the conclusion that, as so much has been done for two branches of our national interests, any measure calculated to promote the third, and as your committee believe, the most important branch, ought to meet with favorable and liberal consideration from Congress. The extent of our country and the variety of climate and soil are such as to invite to the production of almost every article that will promote the comfort and convenience and even the luxury of man, and render us, in the utmost extent of the term, the most independent nation on earth; yet, although our "lines are fallen in pleasant places," and we have "a good heritage," and the bountiful hand of our Creator has scattered over the face of the earth, in rich profusion, seeds and plants of every variety, as there is a peculiar adaptation of each of these productions to some particular cli-

mate or soil, our great advantages will be of little importance, unless we are enabled to avail ourselves of them. And it is a fact too well known to require argument or illustration, that many plants which are of little account in their native soil, increase in variety and luxuriance, and become of immense value, by cultivation in a foreign climate: thus, the *potato*, which now furnishes food for millions, was a few centuries ago imported into Europe merely for its beautiful flower; and the *cotton-plant*, which now furnishes the rich staple of a large portion of the Union, was scarcely known in our country fifty years ago. It is true, individual effort may do something in this matter, and the increased interest which is felt by intelligent individuals throughout the Union to elevate the character and importance of agriculture may, through societies and other laudable means, do still more; yet the utmost efforts of individuals and societies are feeble and powerless, compared with even the incidental action of Government, which, with its Argus eyes and Briarian arms, may see at a single glance whatever will tend to benefit any and every portion of our country, and be enabled to collect from every part of the world, and scatter through each section of the nation, seeds and plants so adapted to our own soil and climate, as will greatly enlarge our productive industry, and diffuse plenty and happiness throughout the community. An effort of this kind by the General Government would not only be thus directly beneficial to the people, but would have a most salutary influence in raising the spirit and standard of agriculture, promoting sound intelligence amongst its votaries, and in giving a spur and energy hitherto unknown to the first and noblest occupation of man. It would incite the citizens of the old States, instead of abandoning their own sunny fields and the scenes of their earliest and dearest associations, to attempt by the cultivation of some new article, to resuscitate their old wornout lands, which, by a continual succession of the same crops, have become, in a measure, unproductive and valueless.

The committee take great pleasure in adverting to the Treasury circular of September 6, 1827, requiring our foreign consuls and naval officers to collect and transmit to this country, valuable seeds and plants which might come under their observation abroad; but they have to lament that hitherto no effort has been made by Congress to give effect and value to an enterprise so nobly begun; and although our officers and citizens abroad have shown a paraiseworthy zeal to promote the enlightened views of the Government, by collecting and transmitting valuable seeds and plants, yet, as there was no place designated for their reception, and no person charged with their preservation and dissemination, they have in many instances been suffered to perish, after they had reached our own ports and custom-houses; and but for the attention called to the subject by the present enlightened Commissioner of the Patent Office, the old practice of importing seeds to perish would still be continued. Your committee have, therefore, thought proper to report a bill, placing this whole matter under the charge of the Commissioner of Patents and such individuals as may be employed under him, and making a small appropriation, sufficient to cover the necessary expenses of the undertaking, leaving it to the future

wisdom of Congress to enlarge upon the plan, until, if thought desirable, an *agricultural depository and establishment* may be eventually erected here, at the capital of a great and free nation, that will do credit to her citizens, and rival the boasted establishments of Europe. Your committee have also thought proper to require that the Commissioner should make an annual report to Congress of his proceedings under the proposed act, embodying notices of valuable improvements in agricultural implements, and such statistical and other useful matter that may come under his observation, as may tend to prevent frauds and speculation, and the excessive importation of foreign grain, and diffuse a general information on the subject-matter throughout the whole country. Such a document your committee believe would be looked for with great interest, and be attended with the most happy and beneficial results to every portion of the community. Your committee therefore respectfully recommend the adoption of the bill accompanying this report, which appropriates the sum of \$5,000 for the collection of seeds and plants and the establishment of an agricultural depository in the Patent Office, and requiring the Commissioner gratuitously to distribute throughout the Union, the seeds and plants collected, and to make to Congress an annual report on the subject.

A BILL in addition to the "Act to promote the progress of useful arts, and for other purposes," approved July forth, eighteen hundred and thirty-six.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be appointed in the Patent Office, in manner provided in the second section of the act to which this is additional, a clerk, to be denominated "the agriculturist," who shall, under direction of the Commissioner of Patents, superintend the collection and distribution of seeds and plants, and render such other service as may be required for this general object, and whose salary shall be sixteen hundred dollars per annum; and said Commissioner shall be authorized to employ two laborers, if necessary, at a salary not exceeding four hundred dollars each per annum, to aid in distributing such seeds and plants.

Sec. 2. *And be it further enacted,* That, for paying said agriculturist, laborers, and for the purchasing and distribution of seeds, and the contingencies of this branch of the Patent Office, the sum of five thousand dollars be appropriated, out of any money in the Treasury not otherwise appropriated.

Sec. 3. *And be it further enacted,* That said Commissioner shall annually, in the month of January, transmit to Congress a detailed statement of the expenditures for the agricultural branch, with such information on the subject of agriculture, and the improvements in agricultural implements, as he may deem useful.

Sec. 4. *And be it further enacted,* That all officers in commission from the Government be authorized to transmit, at the expense of the Patent office, such useful seeds and plants as they may be able to obtain without expense, and to purchase such as may be particularly requested by the Commissioner of Patents.

Sec. 5. *And be it further enacted,* That the

Commissioner of Patents shall designate and set apart some suitable place or apartment in the Patent Office to be used as a depository for the seeds and plants collected by virtue of this act; and that the same shall be gratuitously distributed throughout the country, in such equitable manner as the Commissioner of Patents may designate.

Report from the Commissioner of Patents, transmitting information in relation to the duties of his office for the year 1837.

PATENT OFFICE, January 1, 1838.

SIR: In obedience to the law for promoting the progress of science and useful arts, the Commissioner of Patents would respectfully report:

That, during the year 1837, *four hundred and thirty-five patents* have been issued from the Patent Office, of which classified and alphabetical lists are annexed, marked A and B.*

That, during the same period, *one hundred and sixty-eight patents* have expired and become public property, as by list annexed, marked C.*

That the receipts for patents, caveats, disclaimers, improvements, and copies, for the year, amount to *twenty-nine thousand two hundred and eighty-nine dollars and eight cents*: from which may be deducted *three thousand three hundred and twenty dollars* paid on applications withdrawn, as by statement annexed, marked D.*

That the payments made for the restoration of models, records, and drawings, consumed by the late fire, amount to *ten thousand seven hundred and five dollars and fifteen cents*, as exhibited in the statement marked E.*

That the ordinary expenditures of the office have been *nineteen thousand four hundred and eighty-one dollars and eighty-three cents*, as by account marked F.* These expenses have been increased, for the year 1837, by the purchase of furniture, record-books, &c., destroyed in the fire of December, 1836.

The utmost economy has been used in replacing these articles, and no more have been procured than were indispensably necessary. The furniture has been selected with reference to the new building, when the same shall be completed and fit for use.

The number of patents issued during the year 1837 is less than in some preceding years. This is to be attributed chiefly to the operation of the new law, which subjects all applications for patents to a careful examination as to the originality of the invention claimed. Power is given to the Commissioner to refuse a patent, if the invention is not deemed sufficiently useful; but this power is seldom exercised, and is confined to cases where the patent may be in some way injurious, the improvement frivolous, or where an attempt is made to avoid a prior patent. It is the intention of the Commissioner to err (if at all) on the side of liberality, leaving the parties affected to the courts, to contest their doubtful rights. About one-third of the applications made have been rejected, and very few pass without important alterations. In all cases of rejection, an appeal can be made from the decision of the Commissioner; but no such appeal has yet been taken.

* For these statements, see Doc. 112, present session.

The destructive fire, in December, 1836, has occasioned unavoidable delay in discharging the duties of the office. The undersigned, however, has the satisfaction to state, that, by great exertions, the regular business is nearly brought up; but that, to accomplish this, he has been compelled to employ some extra assistance.

The business of the office has increased, and will doubtless continue to increase, with the growth of the country; and the present number of clerks is inadequate to perform all the duties appertaining to patents. I would also remark, that the preparation of copies for judicial purposes, as well as other duties, often requires despatch. If the Commissioner were authorized to employ temporary aid in such emergencies, allowing no more compensation than is established by law, this authority would prevent such frequent interruption of the regular clerks, and secure the public against claims for services not performed.

The labor of the clerks employed in this office has, for the most part, been severe—as much so as that of those who were embraced in the compensation act of last session; and I deem it but just to suggest their equal claim to the additional per centage which, by that act, was granted to others.

The revenue of the office will meet all its necessary disbursements, and it is highly desirable that its business be performed without delay.

Considerable progress has been made in restoring the lost models and records, in conformity with the act of Congress for that purpose: some of the most valuable of the models have been restored, and others contracted for. The collection already made is becoming interesting, and shows a great improvement in their construction.

The commissioners appointed to designate those models which are the most important, and the compensation to be given for the same, have adopted measures to accomplish this object. Notices on this subject have been published in almost all the newspapers in the Union.

The present accommodations do not furnish suitable protection to the models; hence, many of the best cannot be exhibited until suitable cases are provided for them in the new building; and patentees feel unwilling to send their models, until better accommodations are furnished, where the same can be preserved.

Each patentee (and the number exceeds ten thousand) has been addressed, personally, through the post office of the place where he resided when the patent was issued. Many, undoubtedly, in consequence of a change of residence, will fail to receive the communication; but since no patent granted before the fire can be given in evidence without being first recorded anew, this restriction will probably secure the return of the most important. Improvements offered on former patents will, in many cases, require the furnishing of models of old inventions; and in a short time the most valuable records, it is hoped, will be restored.

Two thousand patents have been restored, and recorded anew, since January last. The drawings of many of these have been executed by persons in this office, in a style and manner which

reflect much credit on the skill of the draughtsman; they form already a valuable collection.

(To be Continued.)

[From the New York Statesman.]

LUCERNE.

New York, Nov. 26, 1827.

DEAR SIR:—When I was at your farm, last summer, I observed a field of *Lucerne* in luxurious growth, and great promise. Your absence from home, prevented my learning the particulars of its culture, uses and value.

This grass, I think is not known to any considerable extent in Great Britain or Ireland. In passing through those countries a few years ago I do not recollect to have seen it at all. Perhaps the humidity of the climate, the nature of the soil, and the strong growth of the other finer grasses, may account for its absence. In France, however, I found it held in great esteem, it produced abundantly, allowing four or five cuttings in a season, and was used in its green state for *soiling* cattle.

Your experiments have, no doubt, been made with care. A detailed statement of them will be of service to our agricultural interests. If you will oblige me by furnishing the statement, it will gratify me to be the medium of communicating it to the public.

Yours, very respectfully,

I. M. ELY.

Hon. Jesse Buel, Albany.

Albany, Dec. 7th, 1827.

DEAR SIR,—I most cheerfully comply with your request, in communicating my experiments in the culture of *Lucerne*.

My first essay to cultivate this grass was made in 1820. I sowed it with summer grain, but too thin; the summer was dry, and not more than a fourth of the plants survived till autumn. I ploughed it up at the end of the second year.

In 1824, I sowed sixteen pounds of seed on an acre, well prepared by manure and potatoes, the preceding year, with a half a bushel of winter rye, the whole broadcast. The ground was well harrowed and rolled after it was sown. The rye soon spread its leaves upon the surface and protected the *Lucerne* until its roots had good hold of the soil. It grew well notwithstanding the drought. The latter end of August, perceiving that some of the rye was pushing up seed stalks and that some weeds were overtopping the grass, I mowed it, and fed it green to my cattle. In 1825, I cut three tolerable crops and soiled it to my cows. In 1826 I cut it four times for green fodder, and in the autumn, gave the field a slight top dressing of rotten dung. This year my stock has consisted of six cows and four oxen. My summer pasture would not more than suffice for two of them. I fed them on hay and ruta baga, till about the 20th May, when I commenced cutting and feeding my *Lucerne*, morning and evening, in such quantities as I found my cattle would consume. By the time I had cut over the acre, the part first mown, was again fit for the sythe. Two cuttings, with the small pasture in which the cattle run, sufficed till my meadows and grain fields were fit to turn into. A third crop was cut for hay, and a fourth might have been cut also, but for the difficulty of curing

it. This is the field which you saw when at my house.

From my own experience, as well as from the observations of others who have cultivated this grass, I am satisfied that one acre of good Lucerne will feed six cows five months, from the 20th or 25th May to the 25th October. This, to a person located as I am, upon a small farm, where land is high, would be worth \$45, or \$1.50 per month for each beast.

Lucerne is less affected by drought than any grass I am acquainted with, and but few grasses abide longer than it does in the soil. It does not attain its full strength until the third year, and its medium duration is ten or twelve years.

I will further remark, for the guidance of those who may undertake to cultivate Lucerne, and are unacquainted with its character and habits, that it requires a rich, deep, clean, light, and dry soil. It will neither do well upon clays nor wet grounds.

It should be sown only in spring, when the ground has acquired warmth sufficiently to promote a quick and vigorous growth.

It should be mown for soiling as soon as the blossoms appear; and be permitted to wilt a few hours in the *swath* before it is fed to neat cattle; and lastly, like all other crops.

It is benefitted by an occasional dressing of manure. I think the best way is to apply compost or short dung in Autumn, and harrow with a light harrow in the spring.

When cut for hay, there is a difficulty in curing Lucerne without great loss, as the leaves dry and crumble before the stem is cured. It should be managed like clover—lay a few hours in *swath*, and then put into small slender cocks with a fork. It will cure in two good days. I mixed my autumn crop, in the barn, with alternate layers of straw.

Respectfully, your obedient servant,

J. BUEL.

Isaac M. Ely, Esq.

Cavandar, (near Yonker's) Westchester County, Dec. 31st, 1827.

Dear Sir,—Your favor of the 26th instant, together with an accompanying copy of "The Statesman," you were so obliging as to send me, I received by this morning's mail.

I have attentively perused the statement of Judge Buel, in his letter to you, on the subject of Lucerne, and am pleased to find that his experience, in its culture, so fully accords with my own. The first experiment I made with this grass, was in the Summer of 1821; but the seed did not vegetate, owing doubtless, to there being unsound, rather than to any peculiarity of management; for, when good, they appear to germinate as freely as those of red clover. Not being discouraged by my first essay, I prepared the following year, the same piece of ground, for the reception of fresh seed. This was sown, broadcast, in the early part of July, 1822, without a protecting cover. The plants soon made their appearance, notwithstanding a period of dry weather which succeeded, and continued to grow finely till checked by the frost. As the crop was neither cut nor depastured, a large burden was left on the ground; and in the ensuing spring, before other grasses had yet started, the Lucerne exhibited a flourishing growth. Without entering into any further details respecting this

crop, it will be sufficient to say, that it completely justified, in all respects, the encomiums I had read upon its value. It may be well, however, to remark, that in accordance with the directions of some writers on the subject, I had the ground harrowed for the alledged purpose of extirpating weeds and promoting its vigor. This was done in the third year of its growth, and by these means more than half of the roots were destroyed. The remainder, however, continued to grow well for a year after; but, as the crop did not exhibit the flourishing appearance as before, I determined upon breaking up the ground.

In the beginning of May, 1833, I had about two acres sown with Lucerne. The ground was divided into three pieces, and each piece was, along with the Lucerne, sown with a different grain crop. These consisted of barley, buckwheat and winter rye. The result of the experiment was as follows, viz: that sown with rye proved the best, and that with barley ranked best in quality; but what accompanied the buckwheat was entirely smothered. The Lucerne growing on the two former pieces, being now in the fourth year of its growth, is in a most vigorous state, and so far from evincing any symptoms of decline, continued to grow, the last season, more luxuriantly than ever. I commenced cutting it last spring on the 27th April. It then yielded, I should judge, at the rate of a ton and a half to the acre, on the supposition that the grass had been cured into hay. It was cut for the purpose of soiling, and given to the horses in the stable and to working oxen. The produce amounted, during the season, to six cuttings. In this experiment, the quantity of seed used, was at the rate of 20 lbs to the acre. It was cultivated on a soil similar to that described by Judge Buel, as indispensable to its success.

It is unnecessary, here, to recapitulate all that has been said and written, in favor of this plant. I would remark, however, that the great advantages which have been alleged in its favor, are fully borne out by my experience. It may, further, be well to observe that in reference to the remarks of Judge B. there was no difficulty, whatever, on its being made into hay, when managed in the mode he describes. And it seems to me a matter of some importance to bear in mind that although the virtues of Lucerne have been most largely descanted upon by *British* writers, it is a plant, which is far better adapted to our own country than that of Britain. The latter country, it would appear, does not possess the requisite degree of heat and dryness, to insure the full advantage of its real value. And it seems to be expedient, if not necessary, in that country to cultivate it at the expense of *drilling*—while here it answers with perfect success in the easier and cheaper mode of *broadcast*.

Notwithstanding, however, what has been said in praise of the merits of this grass, I am not unaware of the objections that have been made to its general introduction in this country. More especially, of those advanced by a distinguished agriculturist in the vicinity of Philadelphia. It was my intention to have noticed them, and to have offered some views of individual practice in relation to the subject, leading to a difference of conviction. The length, however, to which this communication has already attained, prevents me

from dwelling any longer upon the merits in question.

With great respect, I am yours, &c.,

V. LIVINGSTON.

I. M. Ely, Esq.

ROBERT SINCLAIR, Jr. & CO.

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Wanted, prime lots Seed, Grain and Grass Seed.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs	7 00	8 50
CORN, yellow,	bushel.	75	76
White,	"	75	76
COTTON, Virginia,	pound	16	12
North Carolina,	"	—	—
Upland,	"	10	12½
Louisiana — Alabama	"	—	—
FEATHERS,	pound.	45	50
FLAXSEED,	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's,	"	—	—
SuperHow. st. from stores	"	7 50	—
" wagon price,	"	7 00	—
City Mills, super,	"	7 75	—
" extra,	"	8 00	—
Susquehanna,	"	7 50	—
Rye,	"	4 75	—
Kiln-dried Meal, in hhds.	hhd.	19 00	—
do. in bbls.	bbl.	4 00	—
GRASS SEEDS, wholes. red Clover,	bushel.	8 00	8 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	—	3 00
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	12 00	15 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 00	7 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	9	—
second,	"	7	—
refuse,	"	5	—
LIME,	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	34	—
PEAS, red eye,	bushel.	—	—
Black eye,	"	75	1 00
Lady,	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	3 50	3 75
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	85	90
Susquehanna,	"	—	none
TOBACCO, crop, common,	100lbs	3 00	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappry, suitable	"	—	—
for segars,	"	10 00	20 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 65	1 70
Red, best,	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.	gallon.	33	—
" in hhds.	"	34	—
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 50	—
To Wheeling,	"	1 75	—
WOOL, Prime & Saxon Fleeces, ...	pound.	20	22
Full Merino,	"	35	40
Three fourths Merino,	"	30	35
One half do.	"	25	30
Common & one fourth Meri.	"	25	30
Pulled,	"	28	30

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this all, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	13	13½
Shoulders, do.	"	11	—
Middlings, do.	"	11	—
Assorted, country,	"	10	—
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,	"	—	—
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,	"	30 00	40 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 68	—
CHOP RYE,	"	1 50	1 62
Eggs,	dozen.	12½	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,	"	6 50	—
Herrings, salted, No. 1,	"	3 00	—
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,	"	5 75	—
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par
Branch at Baltimore,	do
Other Branches,	do
MARYLAND.	
Banks in Baltimore,	par
Hagerstown,	do
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton,	do
Salisbury, 1 per ct. dis.	do
Cumberland,	par
Millington,	do
DISTRICT.	
Washington, } Banks, ½ p.c.	
Georgetown, } Banks, ½ p.c.	
Alexandria, } Banks, ½ p.c.	
PENNSYLVANIA.	
Philadelphia,	par
Chambersburg,	do
Gettysburg,	do
Pittsburg,	do
York,	do
Other Pennsylvania Bks.	do
Delaware [under \$5]	do
Do. [over \$5]	do
Michigan Banks,	do
Canadian do.	do
VIRGINIA.	
Farmers Bank of Virgi. 14a1½	
Bank of Virginia,	do
Branch at Fredericksburg, 1½	
Petersburg,	1½a1½
Norfolk,	1½a1½
Winchester,	1
Lynchburg,	1½a1½
Danville,	1
Bank of the Valley,	1
Branch at Romney,	1
Do. Charlestown,	1
Do. Leesburg,	1½a1½
Wheeling Banks,	3
Ohio Banks, generally, 6a7	
New Jersey Banks gen.	5
New York City,	par
New York State,	3a4
Massachusetts,	3a3½
Connecticut,	3a3½
New Hampshire,	3a3½
Maine,	3a3½
Rhode Island,	3a3½
North Carolina,	5
South Carolina,	6a7
Georgia,	do
New Orleans,	12

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old Nortorn Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr. dam, (Layd Sarah) by Pilot; gr. gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt. of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcery, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho; gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

DAHLIA ROOTS.

The subscriber can furnish any quantity of DAHLIA ROOTS to the number of one thousand, recommended to be a choice variety, all of the double kind, and from the well known nursery of Samuel Reeves, Esq'r. near Salem, New Jersey. I can also furnish from the same nursery very superior APPLE TREES for spring planting, if orders are given in soon for them. Peach Trees cannot be furnished from the said nursery before next fall.

J. S. EASTMAN.

TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$15 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$50 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Scythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

We would particularly call the attention of Country Merchants and others, wishing to purchase agricultural implements to sell again, to the fact, that we will furnish them with articles on better terms than they can be supplied at any other establishment in the city. Our assortment is complete and as varied as that of the most extensive concern in Baltimore.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled entire all orders in the Agricultural and Seed Departments. mh 26 JOHN T. DURDING & Co.

TRY THE NEW ESTABLISHMENT.

NO MISTAKE!

Every article warranted. 500 Ploughs, right and left hand, from \$4 to \$20. Also the Hill-side Plough, well adapted to turn down hill. Wheat Fans warranted to take garlic from all kinds wheat. Cutting Boxes for straw, corn fodder, &c. at low prices. Corn-shellers, of different sizes and patterns, \$15 to \$20. Castings by lb. on ton, to suit ploughs or machinery. All repairs in our line executed with durability, neatness and despatch.

Also, Cline's combined Plough.

J. T. DURDING.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

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BALTIMORE, MD. APRIL 17, 1838.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. W. corner of Baltimore and North streets, over the Patriot office, at two DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, APRIL 17, 1838.

The Silk Culture—As an evidence of the good feeling that is abroad with respect to the Silk Culture, we mention the fact of the House of Representatives of Pennsylvania having ordered a large number of *Roberts' Silk Manual*, published at the office of the *Farmer and Gardener*, for distribution in that patriotic state.

The papers throughout the union, will confer a benefit upon thousands who are now engaging in the mulberry culture, by publishing the subjoined article.

A MULBERRY PLANTATION.

In the selection of a site for a mulberry plantation, the following considerations should be strictly observed :

1. The soil should be *sandy, gravelly, or a light loam*, with a loose subsoil in either case—*because* these are the soils that the mulberry delights in.
2. The situation should be high and dry, with a southern exposure—*because*, first, high situations are less affected by the frost, there being a difference of about 14 degrees between the temperature of elevated and *very low* situations—and secondly, *because* vegetation is earlier on a southern exposure than on any other, and the mulberry planted thereon would afford foliage two weeks earlier than on others.
3. The mulberry orchards would be best if protected by a woods on the *north and west*: should there be no woods, a hedge of white mulberry might be raised in a few years, with but little trouble; and this, in addition to keeping off the piercing winds of winter, would afford considerable foliage for feeding the worms.
4. The water should be *soft*, such as promptly yields a rich lather in the operation of washing, as without the water is soft, the cocoons do not wind off well. Water impregnated with iron or limestone is particularly unfavorable to the operation of reeling.

Products of Essex County, Massachusetts.

The Rev. Henry Colman, Commissioner of the Agricultural Survey of the state of Massachusetts, gives the following in his first annual report, as the products of the following agricultural commodities, in Essex county of that state :

Wheat, 24, 25 and 32 bushels per acre.
Indian Corn, 70, 74, 84, 90½, 90¾, 105, 110, 113½, 115, 117½ bushels per acre.
Barley, 50, 51½, 52, 54 bushels per acre.
Rye, 40, 56 bushels per acre.
Oats, 1000 bushels on 20 acres, being 50 bushels per acre.
Potatoes, 400, 484, 518½ bushels per acre.
Carrots, 849, 864, 878, and 900 bushels per acre.
Mangold Wurtzel, 924 and 1340 bushels per acre, at 56 lbs. to the bushel.
Beets, 782 bushels to the acre.
Ruta Baga, 688, 903 bushels to the acre.
English Turnips, 636, 687, 672, 751, 814 bushels to the acre.
Onions, 651 bushels per acre.
From one acre of land upwards of 3 tons of well cured *Millet*.
From 1 acre of reclaimed meadow, 4½ tons of English hay, were weighed and sold in 1836-7.
From 6 acres of land more than 29 tons of good English hay weighed at the town scales, have been cut in a season.
\$600 worth of winter squashes were sold the last season from 2 acres of land. The market price very high.

The above are given as remarkable products in the county named, many of which were certified under oath to the Massachusetts and Essex Agricultural societies, and others came under the Rev. Mr. Colman's own observation, or rest upon testimony so well authenticated that it is difficult to reject it.

In looking at the respective products quoted, we were very sensibly struck with the great superiority of the husbandry of the Bay state to that of the middle and southern states; for nothing but superiority of culture can account for the great difference in yield, as the soil of Massachusetts is not *naturally* as good as that of most of the states within the described limits, nor is her climate as well adapted to the production of many of the enumerated articles—of, perhaps, none except *oats* and *potatoes*.

This superiority of husbandry is, however, easily accounted for. Massachusetts, in her wisdom and paternal care of the interests of agricul-

ture, has very properly endowed agricultural societies, having granted very liberal annual donations to each society in the state, and thus infused a spirit of emulation into the minds of her husbandmen. Not content with this, she grants special bounties upon particular products, and thus secures to herself the advantages of all the enterprise, skill, and industry of her citizens which they are capable of exerting. She does, indeed, realize that proud principle of Republics—that governments were instituted for the benefit of the people. How lamentable is the truth, that while many of her sisters are content to profess their belief in the beauty of this theory, and are satisfied to be mouth worshippers at the shrine of their idolatry, Massachusetts, with a nobleness of purpose that entitles her to the just and enviable meed of veneration and respect, carries out her principles, and illustrates her belief, by putting in practice what she professes—that intent upon advancing the permanent welfare of her citizens, she looks beyond that contracted policy, which, in its miserly estimate of dollars and cents, restricts enterprise, retards the developement of genius, and manacles the nobler efforts of the mind—and that, by adopting a course as liberal as wise, she stimulates industry, awakens a spirit of generous rivalry, and by marshalling her citizens in the onward road of prosperity, secures to the state distinction and wealth.

THE SUGAR BEET CULTURE.

The following article contains very concise and judicious directions for the culture of this excellent root, and we commend it to the attention of the reader. The only suggestion we would make in addition to the directions it contains, is this: that those to whom it may not be convenient to get the *wheel* described, can very readily draw a drill 1 inch deep, and drop the seed by the hand, making the eye the gauge as to the distance apart. We say this from experience. A man who will go to his work with the intention of doing a good day's work, can plant in this way half an acre a day, besides covering the seed with a rake. If after the seed is soaked, they be mixed with plaster, ashes, or soot, there will be no difficulty in separating them.

With the above remarks relative to the mode

of culture, we will observe, that no farmer who regards the comforts and profits of his dairy, should omit to plant an acre or two. Except the labor of thinning out, they do not require more working than a crop of corn, or potatoes, and at a very moderate calculation, in good soil, manured at the rate of 20 double cart loads of barn yard or other manure, to the acre, will yield 1000 bushels of good roots, the which, if fed out at the rate of *half a bushel* a day to each cow, in addition to their usual quantity of long provender, will keep 12 cows not only in good condition, but well to the pail, from the 1st day of November till the 1st day of May, a period of full six months. And we will warrant the assertion, that cows thus fed, will yield 3-5ths more butter during that entire period, than if fed alone upon fodder, hay or straw, and as each farmer can calculate the profit for himself, we will not attempt it here. From experience, we assert, that butter made from cows fed on this root, in the winter, retains all that delightful flavor peculiar to it in the month of May.

There is another great advantage arising from the culture of this root---it, like the mangel wurtzel, will bear its lower leaves being stripped from July till the time it is taken up; thus, in addition to the root itself, affording several tons of excellent succulent provender for the milch cows, hogs and other stock, at the very period when the pastures afford but a scanty supply, the advantages of which being too obvious to need enforcement or illustration, we shall conclude by observing that every farmer who regards his interest, should seize the occasion of putting in an acre or two; for besides being good for cattle, it is the *very best table beet* of all the varieties now cultivated.

[From the Vermont Chronicle.]

SOIL FOR THE SUGAR BEET.

1. A deep rich loam is the best; but any soil that can be made yellow, will answer well. A *very* dry soil does not yield so large beets, but sweet and nutritious ones. The soil should be free from stones, and well pulverised to a good depth, that the root may pierce it freely and grow smooth and handsome.

2. Plant any time in May,* according to the season. In common seasons the beets will do well if planted as late as the first of June; and we have seen them of a good size (but not ripe) from seed planted a month later.

3. Plant in rows 24 or 30 inches apart; and leave the beets 10 inches from each other in the rows. Beginners are too apt to leave them too thick. The ground should be well manured before planting; coarse yard manure is as good as any. A good way is, to plough and then harrow the land. Then, at a second ploughing, put 3 or 4 inches of coarse manure into every other furrow; and then make your rows directly over the manure. Make the holes 5 inches apart, and an

inch deep. This may be done readily by a light wheel with pegs in the circumference. Drop two capsules into each hole; and then cover them, which is easily and quickly done by running a wheel along the row (that of a common wheelbarrow for instance.) Before planting, pour warm water on your seed, and let it soak at *least* 24 hours; and no matter if three or four days.

4. The weeds must be kept down, and the soil mellow, by the use of the plough, cultivator, or hoe; and the plants must be *early* thinned out, so as to leave only one in 10 or 12 inches.

5. Gather your crop as soon as ripe, i. e. as soon as the lower leaves begin to turn yellow and fall off. They are best preserved in a cellar; either your house cellar, or, if you raise large quantities for your cattle, in one made for the purpose under or near your barn.

* South of New York the planting should not be delayed beyond the 1st of May, and it would be better to get in the seed by the 20th of April. *Ed. Farmer and Gardener.*

SILK INTELLIGENCE.

LEGISLATIVE BOUNTY.

The Governor of Pennsylvania, in his last annual message, recommended to the legislature to grant a bounty for the encouragement of the Silk Culture, and that body, at its present session, with a praiseworthy patriotism, have passed the following law, granting a *bounty of 20 cents per pound on every pound of cocoons, which shall be reeled from cocoons raised by persons citizens of the State.* This, as it takes 10 lbs. of cocoons to make a pound of raw silk, is a bounty of \$2 on every pound of silk, raised and reeled in that State. We look upon this as a most munificent act—one alike worthy of the patriotism and sagacity of the law-givers of the old key-stone of our republic. The *policy* of granting the bounty on *reeled silk*, is we think, the most judicious mode of encouraging the culture, as it exempts the State from any tax until the commodity is converted into a form susceptible of adding to the individual wealth of its citizens, and through them, of increasing the aggregate wealth of the State. Deferring the bounty until the article is rendered one of merchandize, is as wise in its conception, as it will prove salutary in its effects, because it will stimulate the culturists not to halt in their enterprize, until they have achieved the entire object, which they, as well as the state authorities, should have in view.

The bounty is sufficiently liberal to cover nearly, if not all the expenses attending the culture, and must do much to advance the prosperity and welfare of the good people of Pennsylvania, and to make that State, at an early period, a silk grow-

ing one. And if we are not much mistaken in our estimate of the value of the culture, in ten years, it will have added ten, or fifteen millions to the worth of the agricultural products of that enterprising and industrious community.

When we reflect that Pennsylvania has been thus liberal, at a time when her internal improvement debt amounts to upwards of *twenty-six millions*, and that *Maryland*, through the timidity and short-sightedness of her law-givers, refused any encouragement whatever, we confess we feel humiliated by the contrast which the fact furnishes.

Among the arguments used successfully against the bill, these two were most potent in their influences: 1. The embarrassed condition of our finances: and 2. That the granting bounties to any particular branch of husbandry, would injuriously affect all others, by withdrawing the attention of farmers and planters from *all others*.

The *first* objection should have had no weight whatever, because, whatever tends to increase the resources of agriculturists, adds to their ability to bear any burthens which the exigencies of a State may render it necessary to impose.

As to the *second* objection, we deem it almost too absurd for notice, when entertained with respect to the silk culture. How is it possible, that the people of any state, could so far forget what is due to prudence, and to the necessities of our nature, as to abandon the production of the bread-stuffs for any other article whatever? No friend of the Silk culture ever dreamt of its superceding any other branch of husbandry. All that the most sanguine ever hoped for, was, that it might, to a moderate extent, be introduced as a *branch* in the great system of husbandry. Farther than this, no one ever permitted his aspirations to go; and certainly, no liberal minded statesman will contend, that engaging in the Silk culture, thus limitedly, would injuriously affect the general interests of agriculture.

There are reasons, and they are of paramount weight, that will forever prevent the Silk culture from being carried to an *injurious* extent. They are these—that the amount of labor requisite to carry it on of itself, places a *limit* to it, and will therefore always keep it within wholesome bounds; and that the supply will always be regulated by the demand.

It may be asked, why should it be encouraged?—and we will answer the question. Our people are inexperienced in the culture; and as it is, when successfully prosecuted, the most lucrative of all human employments, it behoves the State to offer something like a guaranty of the expen-

ses to be incurred, to encourage its citizens to engage in it; for there is no maxim in political economy more true, than this, that whatever gives appreciation to individual labor, or the sum of surplus products, adds to the strength, physically and pecuniarily of a state, as it is the aggregated wealth of its members which comprise that of the whole body.

[From the Saturday Evening Post.]

AN ACT TO PROMOTE THE CULTURE OF SILK.

The following Bill for the promotion of the culture and growth of silk, has passed the Legislature of this State, and only requires the signature of the Governor to become a law.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same,* That from and after the passage of this act, whenever any person or persons, either individually or collectively, shall raise any silk within this commonwealth, he, she, or they, shall be entitled to draw from the state treasury a premium of twenty cents, for each and every pound of cocoons, so by him, her, or them, reeled from cocoons so raised; and the person or persons so claiming the premium aforesaid, shall first exhibit the cocoons raised, and the silk reeled, as aforesaid, to one alderman or justice of the peace, within the proper city or county where they shall have been raised. And the said alderman or justice shall thereupon examine the person or persons claiming the premiums, aforesaid, upon his or their oath, or affirmation; and shall require the party so claiming the premium, to swear or affirm that the cocoons were raised in the state of Pennsylvania, after the passing of this act, and that the premium has not before been claimed by, or paid to any other person. And also, in relation to such other facts, matters, and things, as is or may be in their opinion connected with the raising or reeling of the same. And upon the evidence being satisfactory to his mind, he shall thereupon make out a certificate, under his hand and seal of the same. And the respective city and county treasurers, upon the presentation of the said certificate or certificates, are hereby authorized and directed to pay the amount of the same, out of any moneys belonging to the commonwealth, which may then be in their hands. And the state treasurer in settling the respective accounts of the several city and county treasurers, shall, and he is hereby authorized and directed to receive the said certificate as equivalent to the amount of money paid out therein, in conformity with the provisions of this act; and the same shall be audited and adjusted in like manner as other payments out of the treasury, are now audited and adjusted by law.

SECTION 2. Any false swearing under this act shall be indictable and punishable, as perjury in other cases is punished. And any fraudulent procuring of the premium on cocoons or reeled silk, under the provisions of this act, shall be deemed a misdemeanor, and on conviction punishable as such by fine and imprisonment, at the discretion of the court.

SECTION 3. The weighing the cocoons, ad-

ministering the oath or affirmation required by this act, and making out the certificate, the justice shall be entitled to a fee of twenty-five cents, to be paid by the person applying for the same.

SECTION 4. The provisions of this act shall not continue or remain in force, for any greater length of time than until the first day of January, 1843.

[From the Farmer's Friend.]

CULTURE OF THE MORUS MULTICAULIS.

In our last we promised to give directions for propagating the *Morus Multicaulis*. Our friends are mostly aware that we have been cultivating this plant, several years, and have made many experiments in the different modes of propagating by cuttings, layers, inoculating and engrafting upon stalks or other species of the Mulberry.—The *Morus Multicaulis* is commonly known as the Chinese or Manilla Mulberry. It was first introduced into Europe by a travelling botanist, Monsieur Perottet from France, in the year 1824, and has since been extensively cultivated in that country. It was introduced into the United States in the year 1827, by Dr. Felix Paschalis.

The soil and climate of this country have been found congenial to its luxuriant growth, in all parts, from its eastern to its western boundary. It is certainly destined to take the lead of all other species, in every region of the globe. The leaves are very large: some have measured fifteen inches in length and thirteen in breadth, but the ordinary size is about 10 to 8 inches. For feeding silk worms it is to be the most esteemed of all, not only for the facility with which the foliage is gathered, but for the very nutritive quality of its leaves, and the ease and rapidity with which it may be propagated.

The soil best adapted for this plant is dry, sandy or gravelly land, of moderate fertility; it has been laid down as a general maxim that any soil adapted to Indian corn is suitable for the mulberry. If the soil be very rich or very moist, the growth continues until so late in the autumn that the wood does not mature until frost sets in, and the tops are injured by freezing. The loss of the top, is however, of less consequence than some might suppose, because of the rapid growth of new shoots that spring up from the roots.

For the reception of the plants or cuttings, the land should be ploughed, harrowed, and well manured with short litter; it will be the better to cross—plough and harrow repeatedly, that the ground be well pulverised. By thus completely pulverising the soil, it will not only aid in the labor of planting, but of keeping them clean after planting.

Propagation by Cuttings.

Propagating by cuttings is our favorite plan; we manure the ground, plough and harrow it well, so that it is very mellow and of an even surface, we then insert the cuttings of one bud only, in a vertical position, so deep that the bud may be about one inch below the surface, the earth being pressed down carefully around the cutting with the finger, but not pressed on the top immediately over the bud. The plants should stand about 8

inches apart, in rows which are four feet apart, you will then have 16,335 plants on one acre.—When planted in this way, and the earth about them kept loose and entirely free from grass and weeds, they will grow from two to four feet high the first season in our climate. We think it better to cease cultivating or stirring the ground, about the first of July, and the plants will then have acquired that maturity, and firmness, by the time that the autumnal frosts are to be expected, as to suffer less from the severity of the succeeding winter. It is the practice with some to take up the plants in the fall, at first put them in heaps, in an upright position, with soils about their roots, under a temporary shed open at the sides and ends, until about the close of Indian summer, and then remove them into cellars or pits. This plan we have tried, but cannot recommend it. At one time we put a large number of excellent plants in a cellar expecting thereby to protect them, and have them in good condition for transplanting in the ensuing spring, but to our mortification, when we came to take them out, we found that they were all destroyed but barely four plants; the mice had eaten the bark off entirely around each plant, consequently, we lost nearly the whole.—We have since practised a plan which is found to succeed much better, and which we can recommend to others with confidence, it is to go along the row, bend down each plant, lengthwise with the row, and with a shovel cover them over to the depth of three or four inches; this is soon done; the plants of one season's growth are quite flexible, and not apt to break. It should be performed in autumn, before the frosts are too severe; in the ensuing spring they should be carefully uncovered and set upright. After the first season this precaution is unnecessary, as they generally arrive at maturity before the frosts become so severe as to injure them. Mr. Perottet recommends cutting them off near the ground in autumn; this is a very good plan, particularly the first season, as the root is perfectly safe, and is never injured in any dry soil. The tops may be cut off and buried in the ground to the depth of a foot in a field, or they may be secured by placing them in sand or moss in a cellar, and in the spring they are ready for new nurseries of cuttings.

Some persons start their cuttings in hot-beds, and when the season is so far advanced as to ensure their safety from frost, they transplant them into nursery-beds. We cannot, however, yet recommend this plan; last season we put a few thousand cuttings in a hot-bed, but were of the opinion that they did not so generally grow as those in open ground, nor were they any larger at the close of the season. We would not, by any means, discourage any from making the experiment, but think proper to observe that the result was unfavourable to us.

SILK.

We saw yesterday, at the Hall of the Franklin Institute, the machinery so much lauded for winding and preparing silk. It was exceedingly neat and simple. One piece took the silk from the cocoons and wound it on spools; these spools were placed in another frame, and the silk was immediately twisted into the common sewings; or, if required, the warp and filling were prepared, and a little loom was at hand to weave the

whole into a strong and handsome fabric for ladies' dresses, or vest patterns.

The advantage of this invention is the great simplicity of the operation, the direct transfer of the silk from the cocoons to the spools, and the ease and rapidity of twisting and putting into skeins the prepared thread.

We understand that the inventor can be addressed at the foundry of Messrs. Bonney & Bush, Wilmington, Del.

THE HOLLOW HORN.

A fair offer—Within a few days we have heard several farmers from the surrounding country complain that "their cattle have the hollow horn." We have had a little experience in the management of cattle, and know something about this "hollow-horn," and we are satisfied that it is nothing more nor less than an attendant, a sort of hanger on, of that worst of all diseases among cattle, the *hollow belly*.* We know men, who have cattle that during the whole winter, have been exposed to the "pitiless peltings" of the storms, with a snowdrift or an ice-cake for a bed, and with nothing but a scanty pittance of prairie hay, or musty straw for food, and who now wonder that "their cattle have the hollow horn!" The wonder should be that they have any cattle living.

We will make the following proposals to all those owning cattle. Keep them under shelter during the storms and cold weather of next winter. A hovel, built of logs and covered with coarse hay or straw, standing in a dry place, is sufficient for this. Salt them twice a week regularly; give them a sufficiency of wholesome provender, and water at all times, and each of them a mess of potatoes or turnips at least two or three times a week. Keep your working cattle shod, and if you work them hard, feed and nurse them accordingly. Do not beat them; never let them stand in the cold longer than is absolutely necessary; particularly when you drive them to town with a load of grain or wood or for any other purpose, do not let them stand in the street, hungry and shivering, hour after hour, while you are in a grocery drinking and carousing. Follow these directions fairly, according to their true intent and meaning, and in the spring we will engage to pay you for all the damage you have sustained by the "hollow horn."—*Fort Wayne Sentinel*.

[*We do not agree with the editor of the Fort Wayne Sentinel, that the cause of this disease is to be found in scanty feeding. Bad or insufficient diet may to a certain extent, under exposure to the weather in winter, contribute towards its production, because of its tendency to weaken the system and thus bring about an inability to resist disease; we believe the proximate cause of the hollow horn to arise mainly from exposure to the alternations of the weather in winter, and not from poor feeding, as we have seen cows suffering under this malady, which were not only peculiarly well fed, but which were at the time fat enough for the shambles. They had, however, to contend against the elements, untended and un-

housed, and hence the source of their disease.—

Editor Farmer and Gardener.]

USEFUL RECIPES.

CURATIVE OF CATTLE.

To restore the Cud. Take of the inner bark of elder and rue each a handful; chop them small, put them into three quarts of ale; boil till the herbs are soft; then add of red pepper and aniseed, each half an ounce, and a quarter of a pound of madder; let the mixture boil for a quarter of an hour; then take a handful of salt, twelve cloves of garlic, four eggs, shells and all; pound the whole tolerably fine, then add the boiling liquid to them, and put the whole to cool down to the temperature of milk. When it has been thus far cooled down, stir it well, and give the animal one-half the decoction, and the remainder in six or eight hours, taking care to keep it without water during the day. The first dose generally restores the cud in a few hours, and the second seldom fails.

To cure the Scab. Make a strong decoction of tobacco in human urine, wash the affected parts three or four times a day with it; while the cure is being effected, give him or her the following drink:

Take of rue and angelical each a handful, boil them in 3 quarts of ale, or beer, cool it, and when near milk warm, add 2 oz. flour of sulphur and a half pint of molasses. This will make two drenches, which should be given two mornings in succession. If the disease should not yield readily to the wash, the drink should be continued for a week; and if beer or ale cannot be handily obtained new milk may be substituted, adding a handful of ginger to each draught.

To cure a gall. Take white lead ground in linseed oil, and anoint the part night and morning for a few days.

To cure the bloody scour or flux. Take elder buds or flowers, if green, a handful, if dry, 2 oz., of hyssop, celandine, mallows and yarrow, a handful of each; boil the whole well in half a gallon of beer, then add of the powder of aniseed, madder and liquorice 2 oz. each, and half a pint of molasses. Give this in two drenches; keep the animal warm, and let him drink no water while under its operation; but prevent his or her thirst by giving warm messes, in each of which grate about the quarter of an ounce of oak bark.

English Walnuts. Every farmer should plant a dozen or two of these trees before his house or along his lane, for there is no tree that makes a more beautiful shade, is more ornamental, has a more cleanly foliage, or would afford so much

profit. If planted early in the spring directly after the frost is out of the ground, they will come up, and require no labor except that of keeping the weeds down a few years. The nut should be put about 1½ inches below the ground, and should have some broken bones placed around and underneath it. These serve as a permanent manure, and greatly encourage the luxuriant growth of the tree. In 12 years they will bear, and largely contribute to add to the farmer's income.

From the Massachusetts Commissioner's Report.

SHEEP HUSBANDRY.

A second branch of sheep husbandry, which the Essex farmer may prosecute to great advantage is the raising of early lambs for the market. I mention one example which may seem trivial, yet a feather may indicate the course of the wind as certainly as the ship under full sail. A farmer in Ipswich had a lamb come on the first of January last. He fed the ewe with plenty of succulent vegetables, and he allowed the lamb to have free access in Indian meal, of which he soon became fond, though the whole amount he consumed was trifling. On the 20th of May the butcher gave him 4 dollars for the lamb, which weighed 9 and 10 lbs. per quarter. Another farmer this last season from 30 sheep sold 24 lambs at \$3 each.—Another from 30 sheep sold lambs to the amount of \$75. Another from 12 ewes sold 18 lambs at \$2 50 cts. each.

I subjoin the account given me by an exact farmer. "Five years ago he bought 6 sheep for \$2 per head. From these he sold 6 lambs at \$2 each. He considered the wool as paying for their keeping. The sheep sold in December of that year \$25.50.

Four years ago he bought 12 sheep but did not do so well because he did not sell the sheep; the lambs sold for more.

Three years ago he had 25 sheep. The experiment in the sale of the lambs did well.

Two years ago he had 50 sheep; for 40 lambs he received \$100, for 4 lambs \$8—108; for the wool at 48 1-2 cts. per lb. he received \$73. Total proceeds, \$181. He kept the stock.

This year he had 47 sheep. They gave him 34 lambs and besides these, 7 lambs died. The lambs brought \$2.25 each. They did not come until April."

LARGE BEEVES.

The Kentucky Farmer says:—A lot of twenty fatted steers, from two to five years of age, fed by Mr. Robert C. Boggs, of Fayette, passed through this place a few days ago to the Louisville market, which were estimated by the best judges to average 1500 lbs. neat. At 6 1-2 cents, which they will probably realize, this little lot of cattle will "bag" nearly \$2000 for their worthy owner. A two year old, half blood Durham, was computed to weigh at least 1500 lbs. and was consequently nearly as large as the largest five year old. This fact is one highly encouraging to the breeders of that race of cattle, though not the strongest one in point. Several animals in this neighborhood might be cited, which weighed from 1200 to 1500 at one year old, but these were full bloods. Let

the farmers calculate the advantages of raising this breed of cattle, and there can be no doubt of the *economy* of paying even the high prices demanded for them, instead of feeding the scrubs. Here is an animal of the half breed Durham, weighing, with precisely the same feeding, as much at two years of age as the scrubs at five. Now take off the value of three years feeding, risk and investment of capital, and see to which description of cattle the balance of account appears credited; and some idea may be formed of the comparative value of the Durhams and scrubs.

AGRICULTURE AND USEFUL ARTS.

Report from the Commissioner of Patents, transmitting information in relation to the duties of his office for the year 1837.

(Concluded.)

Among the losses occasioned by the fire, most deeply regretted, was the destruction of all the papers deposited by *Robert Fulton*. His drawings were executed by his own hand, and formed an interesting part of the records of American genius, establishing for our country the honor of the first successful and practical employment of steam in navigation. This loss has been considered irreparable. I am happy, however, to state, that correct duplicates can doubtless be procured. The fame of Fulton attracted the attention of a foreign Government, for whom, on application therefor, complete copies of his drawings and transcripts of specifications and other papers deposited in this office, were made and transmitted to London, where, it is presumed, copies may be obtained to supply the place of the originals. Measures will immediately be taken to accomplish that object.

The necessity of a library of scientific works, to facilitate the discharge of the duties of the office, need only to be mentioned to be duly appreciated. Under the former law, no examination as to the originality of inventions was made, and duplicates and triplicates of the same thing were often patented. The public were subjected to daily impositions, and the first inventors were driven into courts to maintain their rights. Now, each application undergoes a careful examination; it must be compared with caveats already filed, with other pending applications, with patents issued in this country and abroad, and also with published inventions of the whole world. English, French, and German books must be at the command of this office, in order to make the proper examinations. Fifteen hundred dollars were accordingly appropriated, in the year 1836, for works to be purchased under the sanction of a committee.

This appropriation was designed to add to the existing library; but that library, with such books as had been already purchased, was, unfortunately, consumed; it therefore became necessary to use the remainder of that appropriation to replace books which were on hand before the fire, and to furnish others which were most needed. Additional works of the kind contemplated when the appropriation was made, are greatly wanted to aid in considering applications for patents. Persons who offer their inventions to be secured by patent, can hardly be satisfied that others have gone before them in the same inventions; and nothing but the inspection of models and draw-

ings which prove the fact, can ever induce them to relinquish the fond expectations of months, or even years. As the receipts of the office will allow an annual appropriation for a library, such appropriation is respectfully recommended.

The destruction of the Patent Office compelled the Commissioner to seek new accommodations, and an arrangement was accordingly made, with the approbation of the honorable Secretary of State, for the use of a part of the City Hall, where fire-proof rooms were found adapted to the purpose. Every facility on this subject has been afforded by the city authorities, and no rent is required or expected. Some alterations were requisite to accommodate both the Corporation and the Patent Office; for these, pecuniary remuneration is justly due; and the undersigned respectfully recommends that measures be adopted to satisfy this claim.

The records destroyed contained an alphabetical as well as classified digest of all the patents granted by the United States. A new record has been nearly completed from sundry authentic documents, with an improved classification. Several copies will be needed for reference in the Patent Office; and since printed duplicates will be cheaper than manuscripts, I here respectfully suggest the propriety of an appropriation for publishing a new edition as soon as practicable. The expediency of distributing a number of copies to the respective States is also suggested. This would enable those interested to obtain information with less delay to themselves, and much less interruption to the regular business of the office.

It is worthy of remark, that the provisions of the late law authorizing the reception of unpatented models and specimens of manufactures, will do much to increase the collection at the Patent Office. No exhibition in Europe, it is believed, can surpass that which will be found, in process of time, in the building now in a course of preparation for this establishment. The beautiful collections of manufactured articles at the temporary fairs of our large cities may give a faint idea of that great gallery of arts and manufactures which will thus be permanently opened at the seat of Government, where all that is new and interesting will be added from year to year, and carefully preserved. Interest and patriotism will combine to multiply the articles deposited.

The exhibition will be continually increasing in beauty and utility; and all this, so honorable and advantageous to the country, will be accomplished without any other expense to the public than the trifling charge of transportation from the place of manufacture.

The Patent Office has been greatly subservient to the promotion of the arts and sciences, and its late reorganization will extend, in a much higher degree, its usefulness. Without the encouragement of the patent laws, few inventions would become practically useful. By this encouragement, a stimulus is given to talent and ingenuity, and the result of human effort seems almost incredible. The inventions of the day have proverbially overcome time and space. The numerous manufactories spread over all the country attest the patronage they have received from Government.

Of late, however, inventors have directed their attention, with peculiar interest, to the improvement of the implements of agriculture, and many

labor-saving machines have been patented, which are of the highest utility to the husbandman. These are rapidly increasing; and it is scarcely possible to conjecture to what extent the labor of the agriculturist may be diminished, and the products of the country increased, by these improvements.

Already, the process of sowing, of mowing, and of reaping, is successfully performed by horse-power; and inventors are sanguine in the belief (and probably not without reason) that the time is not far distant when ploughing machines will be driven by steam, and steam-power applied to many other operations of the husbandman. Implements of this kind will all be collected and exhibited at the Patent Office, and, from the resort of thousands to the seat of Government during the session of Congress, a knowledge of their use and practical application will be extended over the whole country. A subject intimately connected with this, is the aid which husbandry might derive from the establishment of a regular system for the selection and distribution of grain and seeds of the choicest varieties for agricultural purposes.

For commerce and manufactures, much has been done; for agriculture, the parent of both, and the ultimate dependence of the nation, much remains to be done. Husbandry seems to be viewed as a national blessing, that needs no aid from legislation. Like the air we breathe, and the element of water, which sustains life, the productions of the soil are regarded by too many as common bounties of Providence—to be gratefully enjoyed, but without further thought or reflection. Were the two former susceptible of the same improvement with the latter, who would not rejoice to enrol his name high on the list of philanthropists, by making the first experiment?

This subject has been forced on the attention of the undersigned by those who are engaged in improving our implements of husbandry. The Patent Office is crowded with men of enterprise, who, when they bring the models of their improvements in such implements, are eager to communicate a knowledge of every other kind of improvement in agriculture, and especially new and valuable varieties of seeds and plants. Hence, the undersigned has been led to receive and distribute, during the last two years, many articles of this kind which have been committed to his care; and experience has induced him to believe that there is no spot in the Union so favorable to this object as the seat of Government.

The great desideratum at the present time seems to be, that some place should be designated and known as the depository of all articles of this kind, and from whence they may be dispensed to every part of the United States.

Our citizens who are led by business or pleasure into foreign countries, and especially the officers of our navy and others in public employment abroad, would feel a pride in making collections of valuable plants and seeds, if they could be sure of seeing the fruits of their labors accrue to the benefit of the nation at large. But, hitherto, they have had no means of distributing, to any extent, the valuable productions of other climates, which patriotism or curiosity has led them to introduce into our country. To a great extent, they have perished on their hands, for want of some means

of imparting to the public the benefit they had designed to confer. Those who have not considered the subject in its wide details, are very imperfectly qualified to judge of its importance.

The introduction of a new variety of wheat promises the most gratifying results in securing that important and indispensable production from the destructive effects of our severe winters.

A short time since, the most eastern State of our Union was, in a measure, dependent on others for her bread-stuffs. That State is now becoming able to supply its wants, and will soon have a surplus for exportation; and this is effected by the extensive introduction of spring wheat. Among the varieties of this wheat, however, there is great room for selection: there is at least 20 per cent. difference, if regard is paid to the quality and quantity of the crop.

From experiments made the last summer, there can be no doubt that the crop of Indian corn may be improved at least one-third, without any extra labor; and this effected by a due regard only to the selection of seeds.

And here it may be mentioned, that an individual has devoted twenty-five years to this single object; and, from our common Indian corn, has produced a new variety, which, if distributed as it ought to be, may prove a great benefit to the husbandman and to the country.

From the samples transmitted to the Patent Office, especially from the shores of lake Superior, there is a moral certainty of a good crop of corn in the higher latitudes, if proper attention is paid to the selection of seeds. Inattention to this subject has lost to the Northern portion of our Union many millions every year. The quantity of flour (wheat, or other kind) consumed in the United States is estimated, on the highest authority, at five thousand five hundred millions of pounds: one-half of this is supposed to be wheat, which, at three cents per pound, amounts to over eighty millions of dollars; and the remainder, at one and a half cents only, amounts to over forty millions. If to this be added the vast quantity distilled and employed in the arts, and consumed by domestic animals, a conception may be formed of the importance of our crop of grain. If, then, the quantity should be increased only 10 per cent, by improving the seed, the annual grain to the country, from this source alone, would not be less than from 15 to 20 millions of dollars. It is unnecessary to carry out this estimate to the other productions of the vegetable kingdom; the result would be the same in all. The well-directed efforts of a few years might give to this generation what would not otherwise be enjoyed in the present century.

It may not be improper to add, that, if this nation should desire to make her metropolis the seat of science and the arts, this might be easily accomplished. The collections of mineralogical specimens from every section of our widely-extended territory, will, it is believed, furnish a most interesting exhibition, illustrative of the geology of the country and of its mineral resources.

The natural and practical sciences, as well as the arts, have usually found their best patron in the munificence of a wise Government. An apartment in the new building could be appropriated to the above object, in connexion with an agricultural depository.

The undersigned will be pardoned for offering these considerations in favor of agriculture, as they have been forced upon him in the discharge of his official duties; and as Congress has required him to make such suggestions, respecting the interests committed to his care, as may seem important to the public good, he will continue to do all in his power to promote the secondary, though important, object which has thus become, in some degree, connected with the Patent Office, in the full belief that Congress will find it for the public interest, either now or at some future period, to give a more definite character to the measures which have thus been commenced for this most important object.

Very respectfully, your obedient servant,
HENRY L. ELLSWORTH,
Commissioner of Patents.

HON. JAMES K. POLK,
Speaker of the House of Representatives.

PATENT OFFICE,
Washington, February 22, 1838.

SIR: In compliance with your request to designate the mode of accomplishing the views suggested in my annual report respecting agriculture, I would respectfully observe, that the object first to be embraced is the introduction and distribution of new varieties of seeds. Some valuable seeds may be collected from our country, but most must be imported. There seems scarcely any limit to the undertaking, since there are so many exotics or exotic species to be introduced; nor will the number ever lessen. Present varieties will no sooner be cultivated here, than others of superior kind discovered abroad.

The sexuality of vegetables is not a novel doctrine, though lately established upon the basis of logical induction.

Who has not noticed the admixture of different species of grain, by sowing the same in contiguous situations? It is no longer doubted that the vegetable as well as animal world, can be equally improved by "crossing." Agriculturists are pursuing this process more extensively in Europe than in this country; and in Europe, also, the finest kinds of seeds are more carefully selected for cultivation. In this country, however, something has been done. A gentleman of Maryland (Mr. Baden) has raised a new variety of prolific corn, simply by attending to the selection of the best kind for 25 years. The stalks of corn that yielded, 25 years ago, only a single ear and a "nubbin," now yields from five to eight ears. It is deeply regretted that this corn cannot be raised in the higher latitudes. Should, however, pains be taken to mix the pollen of this kind with that of early Dutton corn, the prolific and early qualities can be combined.

I will not, however, enlarge upon this point, and only introduce these remarks to show the encouragement to continued efforts. No one who has reflected much on the subject now before the committee can estimate the advantages. To accomplish the object suggested, an appropriation of a few thousand dollars will be needed.

The force required to conduct this branch of the Patent Office will be a scientific agriculturist, one well qualified to discharge the duties of correspondent, examiner and classifier of seeds; and one or two laborers, to take care of the seeds

when received, and pack up the same for distribution. It is impossible to estimate exactly the amount required for the purchase and transport of the seeds. This would depend upon the extent of efforts used, and also the degree of gratuity in the distribution.

The means to be employed will be our navy, our diplomatic corps, and numerous citizens now residing abroad.

Reciprocal exchanges with foreign agricultural societies will aid much.

For the first year I would propose the following appropriations:

The agriculturist	\$1,600
For two laborers, \$400 each	800
For contingencies for purchasing and distributing, and records	2,600
	\$5,000

It will be the endeavor of this office to present a collection of the different kinds of grain and seeds raised in our country, with the weight, production, quality, and place of gathering the same. It is thought, also, that by the aid of the agricultural branch of this office, the Commissioner of Patents could annually report a tolerably accurate amount of the respective agricultural products of this country. This information is highly important to Government, and will secure the needy against the unjust speculations of the monopolist, founded upon a belief of scarcity, when there is a plenty in the land. I will not, however, enlarge; the subject is new, and will grow in importance, while our main dependence for food is from the cultivation of the soil.

I herewith transmit a copy of a letter received from Mr. Baden, which proves conclusively what may be done for the improvement of our present varieties of grain.

I humbly trust the suggestions made in my report will meet the favorable views of the honorable committee. May I add that I have received many ardent letters, expressing a hope that Congress will act liberally and promptly in the matter.

I remain, most respectfully, your,
H. L. ELLSWORTH.

[From the National Intelligencer.]

COLUMBIAN HORTICULTURAL SOCIETY.

At the last stated meeting of this Society held last Saturday at the City Hall, pursuant to public notice, a very numerous attendance of the members took place; and, we are happy to say, the proceedings were altogether of a very interesting and gratifying character, evincing, as they did, through the Society's correspondence with scientific and practical horticulturists in various parts of the Union, the report of the Treasurer, and the announcement of sundry presents for the benefit of the institution—a most satisfactory evidence of its utility, value, and prosperity.

N. Towson, Esq., the President of the Society, announced a correspondence with Mr. Longworth, of Cincinnati, Ohio, on the subject of domestic wine manufactured by that gentleman, samples of which have been forwarded for the inspection of the Society. A similar correspondence was also announced by Mr. Barnard, Vice

President of the Society, with Mr. Longworth, N. Herbermont, Esq. of Columbia, S. C. and Sidney Weller, Esq. Brinkleyville, Halifax co., N. C. The reading of this correspondence appeared to interest the meeting very considerably; and at the close of it the gentlemen named were, on motion of the Vice President, unanimously elected corresponding members of the Columbian Horticultural Society.

In the course of the evening, on motions of D. A. Hall and Mr. Rich, Dr. Henry Perrine, of Florida, (to whose able memorial on the subject of introducing tropical plants into the United States, Mr. Hall called the attention of the meeting) and Dr. Joseph E. Muse, (whose address before the Dorchester Agricultural Society had been presented to the meeting) were also unanimously elected corresponding members of the Columbian Horticultural Society.

A present of Spanish clover seed was announced from Commodore Patterson.

Mr. Suter presented, from Mr. Wm. Jewell, of Georgetown, a large quantity of Silkworm eggs, with a request that the society will have them distributed.

Col. Kearney presented to the Society some seeds, procured by him in North Carolina, and which, in that State, are used as coffee, being prepared in a similar manner, and the beverage obtained from them being esteemed equal to the best coffee.

For these presents a vote of thanks was unanimously passed.

Mr. Barnard submitted the report of the committee on unfinished business, which was ordered to lie on the table.

Mr. J. F. Callan made an oral report relative to the finances of the Society, from which it appears that the Treasurer has a balance of money in hand, and that about \$200 of available funds are due to the Society.

On motion of Mr. Wiltberger, the Society ordered that the "Farmer and Gardener," published at Baltimore by E. P. Roberts, Esq. be subscribed for.

The Committee on Vegetables reported that Mr. McKane had presented to the Society a beautiful specimen of tomatoes of last year's growth, which he had preserved in salt and water. The committee expressed their gratification at the fine appearance of these tomatoes, and were pleased to perceive that it is a vegetable which can be so easily preserved in all its good qualities.

The Committee on Flowers reported that, since the last monthly meeting, Mr. Joshua Pierce had exhibited to them five seedling camellias, for the first time in bloom. Three were equal to the coccinea and rubiculis—one a very large single red, resembling the Astoria, but longer, named HENRY Fox, and one a white, partaking of the character of the Wilbankiana, but superior in form and size; the flower was not fully expanded, but then measured upwards of 15 in. in circumference. This he has named LAURA COATES, in memory of a justly esteemed young lady, late of Philadelphia. Mr. Pierce's specimens of pæonias, for large size and beautiful colors, exceed any thing of the kind heretofore exhibited to the committee. To the skill of Mrs. Pierce much is due for her improvement in this beautiful little flower.

Mr. J. F. Callan exhibited a German parrot tulip,

named "Perfecta," semi-double, red, yellow, and green—a very splendid flower, blooming in water.

Mr. Barnard exhibited a large quantity of beautiful and finely scented violets.

On motion of Mr. Barnard, a committee of three members were appointed to inquire into the expediency of holding a Public Exhibition, with instruction to make an early report upon the subject. The Chair appointed Messrs. Barnard, Smith, and Suter, to be that committee.

Upon the whole, the proceedings of this stated meeting were highly interesting; and they afford a well-grounded hope that the Columbian Horticultural Society will continue to be a great public benefit to the city, the District and the adjoining counties.

On motion of Mr. Wiltberger, the Society adjourned until Saturday, the 14th instant.

From the Silk Grower and Agriculturist.

MAPLE vs. BEET.

Mr. Coke:—As the manufacturing of sugar from the beet has become the subject of general conversation, and of deep interest to the community, having already engaged the attention of speculators and legislatures, I have thought it not improper to call the attention of my brother farmers to the maple which with a little expense yields a saccharine matter much more palatable to the New England lasses than the Gallick beet.

There was manufactured in the town of Gilsum the past season, 15,000 lbs. of maple sugar. The population does not exceed seven hundred, accordingly there was made over 21 lbs. to each individual in the town; a large supply for one year, if prudently used. The 15,000 lbs. was manufactured by about forty of the farmers at an expense in labour probably not exceeding \$500. Allowing the sugar to be \$10 per hundred, it will leave \$1000, which after deducting \$400 for fuel, interest and fare on manufacturing apparatus, leaves \$600 for the use of the maple. Last spring was what may be termed "a good sugar season," but by tapping the trees (most farmers in this town having them in abundance) much might be made in a less propitious season, and a still greater quantity in favourable seasons. Many improvements have been made in manufacturing maple sugar, and many more can and doubtless will be made in the process of evaporating the sap.—There is scarcely any soil in New England upon which the maple will not grow, and in my opinion there is not a more clean and beautiful timber or ornamental tree. There is no indigenous tree that throws off so much oxygen, and consequently none so conducive to health. I have written this in hopes that some one more able will take up the subject, and show that a Yankee ought to date his birth from the time he first planted a maple tree, which ought to be called the tree of liberty; for I believe it is the only vegetable of value, which is not to come under the monopolizing grasp of soulless corporations. Gilsum, June 7, 1837.

REUBEN BROWN.

THE ROHAN POTATOE.

Several statements relative to the great productiveness of the Rohan Potatoe, a variety cultivated

in France, were published in the papers some years ago. In 1836, John A. Thompson, Esq. of Catskill, who, it will be seen by an advertisement in this paper, has a quantity of them for sale, procured some of the seed from France; and from his experience in cultivating them the two past seasons, he says he is perfectly satisfied of their superiority for the table and their extraordinary productiveness.

It is said that in France they have weighed as high as 14 lbs. Judge Buel says he planted 12 lbs. of these potatoes last spring. He divided the tubers into sets of two eyes, and planted one set in a hill four feet apart, in a piece of ground much shaded, and in rather low condition. On the 28th of September they were dug, and found to weigh 525 lbs. and measured nine bushels. "We have hardly been able yet to decide upon the quality of his potatoe, having barely tasted of one; yet we deem it equal to the English white orange, or the common peach blossom variety, which are kinds commonly cultivated. Others, however, in whose opinion we place great confidence, do not hesitate to pronounce them superior for the table. They are undoubtedly the most productive variety of the potatoe we have ever met with."—*Genessee Farmer.*

From the Sandusky Clarion.

TO DESTROY LICE AND CATERPILLARS ON FRUIT TREES.

I have observed that fruit trees, in this region, are almost universally injured by lice and caterpillars.

They first act on the outer bark, until it becomes almost black, and finally destroys the tree. It is said that they enjoy but a few days of life, in the spring, and can then be easily destroyed. I have observed, that about the time of the first blossoms, they are loose in the bark: and I apply a white wash, mixed of lime, soap, fresh cowdung and water, which effectually destroys them on every part of the tree to which it is applied.

As for the caterpillars, I never suffer them to remain on any tree 36 hours after I discover them. The process of destroying them, is by boring a small hole, two or three inches deep, in the body of the tree, nearly filling it with common sulphur, and stopping it with a soft wool Plug, driven tight, but not so hard as to split the wood or bark. They rarely remain twelve hours afterwards. In a practice of eight or nine years, neither of these methods has failed in a single instance.

S. M. LOCKWOOD.

A NEW-FOUNDLAND SLUT.

For sale, a large size New Foundland Slut, of large size and very handsome. Her color is black. She is thoroughly broken to the gun, and in pup to a bull dog; price \$20. Enquire of the editor of the Farmer and Gardener, Baltimore, Md. ap 17

CONTENTS OF THIS NUMBER.

The silk manual—directions for a mulberry plantation—products of Essex county, Mass.—sugar beet culture—silk intelligence—the hollow horn—useful recipes curative of cattle—English walnuts—sheep husbandry—large heeves—report of the Commissioner of patents concluded—proceedings of the Columbian Horticultural Society—maple and beet—the rohan potatoe—to destroy lice and caterpillars on fruit trees—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	75	76
White.....	"	75	76
COTTON, Virginia,.....	pound	10	12
North Carolina,.....	"		
Upland,.....	"	10	12½
Louisiana — Alabama	"		
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's.....	"		
Super How. st. from stores	"	7 50	
" " wagon price,	"	7 00	
City Mills, super.....	"	7 75	
" extra	"	8 00	
Susquehanna,.....	"	7 50	
Rye,.....	"	4 75	
Kiln-dried Meal, in hhds.	hhd.	19 00	
do. in bbls.	bbl.	4 00	
GRASS SEEDS, wholes. red Clover,	bushel.	8 00	8 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"		3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOES, on the hoof,.....	100lb.	7 00	7 50
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	9	
second,.....	"	7	
refuse,.....	"	5	
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	34	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton.	3 50	3 75
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGE,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"		none
TOBACCO, crop, common,.....	100lbs	3 00	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"	10 00	20 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf, ..	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 65	1 70
Red, best	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.	gallon.	33	
" in hhds.	"	34	
" wagon price, ..	bbls	30	
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 50	
To Wheeling, ..	"	1 75	
WOOL, Prime & Saxon Fleeces, ..	washed. unwash	40 to 30	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30	35 18 20
One half do.....	"	25	30 18 20
Common & one fourth Meri.	"	25	30 18 20
Pulled,.....	"	28	30 18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this all, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	13	13½
Shoulders,.... do.....	"	11	
Middlings,.... do.....	"	11	
Assorted, country,.....	"	10	
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"		
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	5 00	6 00
COWS, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	
No. 2,.....	"	6 50	
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ——— No. 2	"	8 75	11 00
No. 3,.....	"	5 75	
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	bound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	
Branch at Baltimore,.....	do	
Other Branches,.....	do	
MARYLAND.		
Banks in Baltimore,.....	par	
Hagerstown,.....	do	
Norfolk,.....	do	
Frederick,.....	do	
Westminster,.....	do	
Farmers' Bank of Maryland, do.	do	
Do. payable at Easton,.....	do	
Salisbury,.... 1 per ct. dis.	do	
Cumberland,.....	par	
Millington,.....	do	
DISTRICT.		
Washington,.....	do	
Georgetown, } Banks, ip.c.		
Alexandria,.....	do	
PENNSYLVANIA.		
Philadelphia,.....	par	
Chambersburg,.....	do	
Gettysburg,.....	do	
Pittsburg,.....	do	
York,.....	do	
Other Pennsylvania Bks. 2		
Delaware [under \$5].... 4		
Do. [over 5]..... 1½		
Michigan Banks,..... 10		
Canadian do..... 10		

EXTENSIVE SALE OF IMPORTED STOCK,

At the Old Norton Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next,

on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr. dam, (Layd Sarah) by Pilot; gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt. of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcery, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sanchez; g r. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

FARMERS' REPOSITORY

OF AGRICULTURAL IMPLEMENTS AND EAST-MAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobaccoists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as usual. Elliott's Horizontal Wheat Fans, and Fox & Boardland's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On hand, a few Patent Lime Spreaders, Horse Powers, &c. &c.

Also just received, a fresh supply of Landreth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,

Pratt street, Baltimore,

feb 20

Between Charles & Hanover sts!

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SAMUEL SANDS—EDITED BY E. P. ROBERTS.

No. 52.

BALTIMORE, MD. APRIL 24, 1838.

Vol. IV.

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. W. corner of
Baltimore and North streets, over the Patriot office, at two
DOLLARS AND FIFTY CENTS per annum, if paid within one
month from the time of subscribing, or \$3 if after that
time. All letters to be post paid.

BALTIMORE: TUESDAY, APRIL 24, 1838.

THE GROWING CROPS.—We are gratified
to learn, from all quarters, that, with the exception
of two or three instances the growing crops of
Wheat and Rye have come through the spring
well, and bid fair, unless prevented by some un-
foreseen and untoward circumstances, to make
handsome yields. We are pleased too, to learn,
that the seedings in general have been large, so
that if present expectations and prospects should
be realized, very fair average crops may be ex-
pected. On the Eastern Shore of this State, we un-
derstand from several sources, though more grain
has been put in than last year, still the quantity
of wheat seeded is considerably less than in 1835.
This arises from the failure of the wheat crops
since that period, having induced most of the
wheat growers to turn their attention more to the
cultivation of Rye and Oats, they having proved
more certain than the former in their yield.

The employment of hired labor is becoming
an evil that loudly calls for a remedy, and we hope
that the subject will be taken into consideration
by every Agricultural Society in the Country.
—Rules must be prescribed and enforced, or we
shall ere long be forced by melancholy experi-
ence to confess that hired help is a curse rather
than a blessing to the employer. We shall here-
after give our views on the subject.

The Corn Crop.—We would admonish all
corn-growers to push forward with their corn-
ground, as in nine cases out of ten, that grain
succeeds best when got in early.

Roasting Ears.—Those who desire early roast-
ing ears should, we think plant the Dutton corn
for that purpose, as besides being earlier than the
kinds usually planted, it is much sweeter than any
other variety than the sugar corn, and gives a lar-
ger ear.

Potatoes.—Many farmers from an idea that po-
tatoes if planted early will not keep through the
winter, delay putting them in until late in May
and the beginning of June, but from experience
we can state, that the idea is without being well
grounded. Last year we planted our crop of po-
tatoes on the 4th of April, and those which we
have left are as sound as they were the day they
were dug. There is another notion that prevents
early planting, that we think without force: We
allude to the impression that prevails, that pota-
toes when early planted become pithy. This so
far as our experience goes is not the case. By
getting them in in good season, they have time to
grow and to become mellow and ripened before the
time for taking them up arrives in the fall, and
will, in nine cases out of ten, yield a great many
more than when their time of planting is delayed.

We publish with feelings of pleasure the sub-
joined copy of the proceedings of the Grand and
Petit Juries of Baltimore county, and commend
them to the favorable attention not only of the far-
mers and planters of Baltimore county, but to
those of every county in the country where no
Agricultural Society now exists.

The recommendations contained in those pro-
ceedings are calculated to effect great good, and
we sincerely hope they will find among the agri-
culturists, to whom they are especially addressed,
a feeling of hearty co-operation. There is, per-
haps, no county in the State possessing more ad-
vantages of locality, soil, and climate, and none,
we are sure, in which brighter prospects are offer-
ed of reaping a rich harvest, if those natural ad-
vantages are improved. Possessing within her
limits all the elements of the most extended im-
provement, Baltimore county needs nothing but
the enterprise of her citizens to be exerted to
place her in a position at once as enviable as
commanding.

At a meeting in the Grand Jury Room, compos-
ed of the members of the Grand and Petit Ju-
ries of Baltimore county, for the purpose of con-
sidering the expediency of calling a Convention
of Farmers, for the purpose of establishing an
Agricultural Society for that County, DAVID
LOWE, Esq., was called to the Chair, LUTHER
COLE, Esq., appointed assistant Chairman, and
CHRISTOPHER C. LOVE, and WM. P. SMITH, Se-
cretaries.

Whereupon, after deliberately considering the
importance of such a Society for the promotion of
Agriculture, and how much the welfare of the
State requires its establishment, it was

Resolved, That the 20th day of August next
be designated as the proper period to assemble a
Convention of Farmers for that purpose.

Resolved, That we recommend to the Farmers
of the county to hold district meetings at the pla-
ces of holding the elections, on the third Satur-
day of May next, to appoint seven delegates
from each, to attend the County Convention.

Resolved, That we earnestly invite and request
the people of the several counties of the State of
Maryland to pursue and adopt similar measures,
preparatory to the call of a general State Con-
vention, at some period to be fixed upon by the pro-
posed County Convention.

Resolved, That we consider Baltimore City as
the most convenient situation for holding the pro-
posed County Convention.

Resolved, That these proceedings be signed by
the Chairmen and Secretaries, and that all the
newspapers in the State friendly to the object
contemplated, be requested to publish the same.

DAVID LOWE, } Chairmen.
LUTHER COLE, }

CHRISTOPHER C. LOVE, } Secretaries.
WILLIAM P. SMITH, }

EASTON CATTLE SHOW NEXT AUTUMN.

With laudable perseverance well deserving im-
itation, the Eastern Shore Branch of the Mary-
land Agricultural Society has maintained its exis-
tence, and in a quiet unostentatious way kept a-
live the spirit for improving in whatever may have
a tendency to lessen the labor and augment the
profits of agricultural industry.

It will be seen that they have decided to hold
an exhibition, and to distribute premiums at East-
on next autumn. The amount it is true is incon-
siderable; the Trustees judging as we hope cor-
rectly, that all candidates for them, will be ambi-
tious to excel more for the credit of success for
the wholesome rivalry that will be evinced, than
for the intrinsic value of the premium. We hope
to see a revival throughout the State.

CATTLE SHOW AND FAIR,

For the exhibition and sale of Live Stock, Agri-
cultural Implements, and Household Manufac-
tures; to be held at Easton, on Thursday, Fri-
day and Saturday, the 1st, 2d and 3d days of No-
vember next; commencing at 10 o'clock, A. M.
on each day.

The Trustees of the Maryland Agricultural
Society for the Eastern Shore, have resolved, that

the said Show and Fair be held at the place and times above mentioned; and that the following premiums be offered, and awarded, to the owners of such articles as may be deemed worthy of them, viz :

HORSES.

For the best Stallion, thorough-bred and over 3 years old	\$10 00
For the best Stallion, not thorough-bred and over 3 years old,	10 00
For the best Stallion, of any blood and under 3 years old,	8 00
For the best brood Mare,	10 00
For the best Filley,	8 00
For the best Saddle-horse,	5 00
For the best Harness-horse,	5 00

ASSES AND MULES.

For the best Jack over 3 years old,	10 00
For the best Mule over 3 years old	8 00
For the best do. under 3 years old,	5 00

CATTLE.

For the best Bull over 2 years old,	10 00
For the best do. under 2 years old,	10 00
For the 2d best do. do.	5 00
For the best Milch-cow over 3 years old,	10 00
For the 2d best do. do.	5 00
For the best heifer under 3 and over 1 year old,	8 00
For the 2d best do. of any age,	5 00
For the best yoke of working Oxen,	10 00
For the best beef,	8 00

SWINE.

For the best Boar,	8 00
For the best Sow,	8 00
For 2d best do.	6 00

SHEEP.

For the best Ram,	6 00
2d best do.	4 00
For the best Ewe,	5 00
2d best do.	3 00
For the best pair of Wethers over 2 ys. old,	4 00
For the best do. do. under 2 ys. old,	4 00

AGRICULTURAL IMPLEMENTS.

For the best Agricultural Machine or Implement that may be considered new and deserving the patronage of the Society,	10 00
For the 2d best do.	8 00

HOUSEHOLD MANUFACTURES.

For the best sample of domestic sewing Silk,	2 00
For the best pair of knit Silk Stockings, of domestic Silk,	2 00
For the best sample of Cocoons, not less than 5 lbs.	2 00
For the best piece of Kersey, not less than 10 yards,	4 00
For the best piece of Kersey, cotton warp, for laborers, not less than 10 yards,	4 00

For the best piece of Flannel, not less than 10 yards,	4 00
For the best piece of Cassinet, not less than 10 yards,	4 00
For the best piece of Carpeting, not less than 20 yards,	5 00
For the best Hearth Rug,	4 00
2d best do.	3 00
For the best Counterpane,	4 00
2d best do.	3 00
For the best piece of linen Sheeting, not less than 12 yards,	4 00
For the best piece of table Linen not less than 10 yards,	4 00
For the best Table Cloth,	2 00
For the best piece of Towelling, not less than 10 yards,	4 00
For the best pair of knit woollen Stockings,	1 00
For the best pair of knit cotton do.	1 00
For the best pair of knit thread do.	1 00
For the best pair of Laborer's Shoes,	2 00

The Stockings to be of a size for a man or woman.

The dying of all domestic Fabrics to be done at home. In awarding the premiums, regard will be had to the beauty of the colours, figures and texture, as well as the durability of the articles.

For the handsomest specimen of Fancy-work, not subject to the above restrictions, 3 00 |

BUTTER.

For the best sample of fresh Butter, not less than 5 lbs.	4 00
2d best do. do.	3 00
For the best sample of potted Butter, not less than 5 lbs. and not less than 3 months old,	4 00
For the 2d best sample, under the same restrictions,	3 00

A statement of the manner of making and preserving it will prove acceptable.

FERMENTED LIQUORS.

For the best sample of domestic Wine,	\$2 00
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CROPS.

For the best crop of Irish Potatoes from one acre,	5 00
For the best crop of Turnips, of any variety from $\frac{1}{4}$ acre,	5 00
For the best crop of Sugar Beet, from $\frac{1}{4}$ acre,	5 00
For the best crop of Mangle Wurtzel from $\frac{1}{4}$ acre,	5 00
For the 10 best contiguous acres of Wheat,	10 00
For the best acre of Corn,	5 00
For the best average acre of a crop of Corn, of not less than 40 acres,	10 00
For the greatest net profit, actually obtained from an acre in one year,	5 00

An average sample of one bushel, must be offered for Exhibition; and in no case will a premium be awarded, unless satisfactory evidence be produced to the Judges, that the ground has been actually surveyed, the crop produced carefully measured by the bushel, and the sample selected, in the presence of not less than two competent and disinterested witnesses.

PLOUGHING MATCH.

For the best ploughing with 2 Horses or Mules,	5 00
For the best do. with Oxen,	5 00
To the successful ploughman in each case	2 00

No article will be entitled to a premium, unless the bona fide owner of the same, be a resident of the Eastern Shore of Maryland, and a subscriber to the Show. The Rules and Regulations for the management of the Cattle Show, will be published in due season.

S. HAMBLETON, *Chairman.*

T. TILGHMAN, *Secretary.*

March 3d, 1838.

THE GRAIN WORM,

It is believed, has diminished the product of the wheat crop, in the districts which it has ravaged for two or three years, at least *three-fourths*—that is to say, it has prevented the sowing of the winter varieties to a very great extent, and it has destroyed, at a fair computation, one-half of the crop which has been sown. Most of the wheat now grown in these districts is of the spring varieties, and these, unless sown late, are very little better than the winter kinds. When, four years ago the New York State Agricultural Society memorialized the legislature upon this subject, urging the propriety of offering large bounties for the discovery of a preventive of the evil, the Conductor of this journal was told by the Chairman of the Agricultural committee, who was from the west, that the subject was not worthy of a report, and consequently no report was made. We are only warranted in saying, that had a liberal reward been offered at that time, and had it led to the desired discovery, a million of dollars would have been saved to the farmers of the infected districts, and many millions more, in the coming years, to the State at large. And had no discovery been made no harm would have been done—no public money expended.

The grain-worm has now extended west to Ontario, and in all probability will in a few years pervade the entire wheat country of the west.—Admitting that its effects upon the products of the wheat crop there should correspond with what they have been here, how immense must be its injury to our trade, our revenue, and to the cultivators of the soil. The wheat and flour brought upon the Erie Canal, the last year, to the Hudson, was nearly equivalent to a million of barrels of the latter, while an equal quantity, probably, was retained for home consumption. A diminution of one-half of this product would leave very little to pay toll upon the canals, or to go to liquidate our foreign debt, as it has heretofore done. Deduct five hundred thousand barrels from the surplus, and this, at the present price, would amount to *five millions of dollars.*

It is true, we cannot drive the wheat-worm from our state, by legislation, any more than we can one dollar bills, yet by calling the attention of men of science, and of practical farmers to the subject, by the hope of a liberal reward, an efficient preventive may be discovered, or one that will materially mitigate the evil. Man is made lord over animated creation; and he is presumed to be en-

dowed with faculties, if suitably improved, that will enable him to exercise that supremacy efficiently. We see the ignorant and the active foresee and avert. We have mastered many of the insect tribes that have preyed upon our crops, our cattle and our bodies; and it is fair, reasoning from analogy, to suppose, that we can master the grain-worm,—if proper and adequate encouragement is offered, by the state, for the discovery of a mode of doing it.—*Cultivator.*

From the *Genesee Farmer.*

CULTURE OF FRUIT.

We propose to furnish our readers occasionally with directions for the cultivation of fruit, embracing every thing of consequence from the apple to the strawberry; with the proper culture adapted to each, and a selection of the most desirable varieties, for those who have but little land; as well as for the farmer's orchard. We intend to furnish one number of this proposed series once in each month. To those who have large fruit gardens and orchards, every thing relating to their management, every thing by which their culture may be improved, must of course be a matter of importance; and to those whose whole farm perhaps consists of but half an acre, or even less, and there are many such among our subscribers, it certainly cannot but be an object of interest to make the best of that little. To such, it is indeed far preferable to have fine, well bearing trees, of excellent and seasonable varieties, than to have their limited grounds occupied by trees whose only product is small unpalatable fruit.

No one, however limited his means, or however little the land he occupies, should be deterred from the cultivation of the *very first rate fruit*.—A tree of the best variety costs but little more than the worst—and will grow in the corner of a small yard, as well as on the richest domain. A dozen trees of the finest selection, will cost but three or four dollars, and may be properly transplanted for half that sum. In five years, if well taken care of they will afford a return for the labour bestowed; and few would then be willing to part with them for five times their cost. The proprietor of the village garden, will find many pleasant hours of recreation in their management; and an agreeable and useful occupation will be furnished to his children. Indeed, the culture, propagation by budding and grafting, and a knowledge of the diseases of fruit trees, should be considered as an indispensable accomplishment in a young man's education.

The first thing to attend to in planting fruit trees, is the *selection of the ground*. This, it is true, is often in a great measure beyond our control; but still, even in a quarter of an acre, if there is any difference in the soil, there is some choice; as each kind in this case may be more nearly furnished with its appropriate soil, than when no attention in this respect is given. Whenever, therefore, a choice can be made, the *apple* should have ground which is rich and moderately moist; the *pear*, *cherry*, and *peach*, a deep loose soil, more sandy for the cherry and peach; the *apricot*, a rich black mould; and the *quince* a rich moist soil. But if the ground be of tolerable fertility, much more depends on a proper preparation by *digging the holes*, than any selection.

There is probably no natural soil in the state,

at all adapted to the proper extension of the roots of fruit trees, without previous loosening by digging. We have seen peach trees transplanted into soil, naturally very loose, and supposed to be sufficiently so without further loosening, linger year after year with little growth; while on the other hand, trees set in a heavy soil, properly prepared, have made a growth the first year of shoots an inch and a quarter of diameter. In the former instance, the trees were put in holes barely large enough to receive the roots; in the latter, the holes were dug six or seven feet in diameter, and fifteen inches deep, filled chiefly with the loose soil thrown out. In the former the roots had to work their way through the undisturbed subsoil; in the latter they penetrated freely through the artificial bed of mellow earth. Almost the whole success of the growth of fruit depends on digging very large holes, (at least 7 feet in diameter,) yet there is nothing we have found more difficult to influence others to practice.

The distance asunder, is a point which should be attended to in transplanting. It is desirable that no ground should be lost by too great distance; and not less so, that the trees be not crowded. It is much better, however, that they be too far than too near; for the same evils result from close planting as from want of pruning—the fruit will be small and of inferior quality. But by allowing plenty of space, the fruit will be properly exposed to sun and air, and become fine and well grown. Another advantage in distance in orchards, is, that it admits more freely of the cultivation of the ground for other crops. Different species of fruit require different distances, according to their respective size of growth. As a general rule, apple trees should never be nearer than 25 or 30 feet, but better if further—pears 15 or 20 feet—peaches not less than 20 feet—apricots 15 feet—plums 12 or 15—and quinces 10 feet. Different varieties of the same species often vary considerably in size; thus the Bough apple and Tallman sweeting are small trees, and the Spitzenburg and Pennock are large—the early white Nutmeg and early Ann peach are small, while the early York and Grosse Mignonne are more than twice their size. But this in general need not be taken into account, as mere varieties do not commonly differ greatly in size.

Guarding from the attacks of the *Curculio*, is another thing demanding attention. This insect rarely attacks other than smooth stone fruit. It is most effectually destroyed, if hogs are allowed to feed under the trees during the season the punctured fruit falls; for as this immature fruit contains the larva or worm for next year's insect, it is eaten and destroyed by the swine that pick up the fallen fruit. Hence all smooth stone fruit,* including plums, nectarines, and apricots, but especially the two latter, should be placed in a separate part of the fruit garden, so that they may be inclosed by a temporary fence, for confining the necessary number of hogs.

An important point in selecting varieties, is to furnish a *regular succession in ripening*. The whole value of some kinds of fruit is owing almost entirely to their time of ripening. Thus, if the cherry matured its fruit with the peach, it

*Except cherries, which are not liable to the attack of *Curculio*.

would be but little esteemed. The importance of early varieties of the best species is therefore obvious. By a proper selection we may have a constant supply of some kind of fruit throughout the year. Strawberries may be had from the latter part of the fifth month (May) till winter.† Raspberries for 6 or 7 weeks preceding wheat harvest. Cherries, from early in 6th month (June) till the same. Apricots and plums commence ripening a little before harvest, the former continuing for a few weeks, the latter three months. Peaches may be obtained from wheat harvest till autumnal frosts. Pears and apples will furnish a supply from harvest till the season of strawberries and cherries the following summer. Selections, as complete as practicable, of varieties for succession, will be given hereafter, when we come to speak of the various kinds individually.

Transplanting properly, is a point of the very first importance. When the trees are taken up, care should be taken that the roots are mutilated as little as possible, especially the small fibrous roots which contain the feeding mouths or spongioles. If large trees are to be removed, they should have all the larger roots cut off at a convenient distance from the centre, the previous year, so that a new set of fibrous roots may be thrown out near the centre. Great care should be taken that the roots never become dry; to prevent this, they should always be immersed in mud as soon as dug up, and then dusted with sand or dry powdered earth. The holes in which they are to be set, should never be less than seven feet in diameter, and fifteen inches deep: turf inverted, or muck, should be placed in the bottom, and finely pulverized rich mould, but never manure, should be well shaken in among the roots, so that they may be well packed on all sides, leaving no cavities. Less fertile earth, thrown from the hole, may be filled in, most remotely from the tree. After the tree is set, which should incline a little to the south-west to protect the stem from the hot sun, it should be braced with one or more stakes inclining towards it, and secured by tying.

Transplanting in *autumn* is generally preferable. When trees are to be transported to a distance, there is not sufficient time in spring; and when the distance is small, if they are removed early in autumn, while yet in a slowly growing state, the spongioles which may have been broken off, will be replaced before the growth ceases. The only case in which fruit trees should not be removed in autumn, is where the more tender kinds, such as apricots and peaches, are taken to a colder region of country, in which instance there would be danger of their being killed by winter.

The *subsequent management*, consists chiefly in keeping the ground well cultivated, and free from weeds. This may be effected in large orchards, by ploughing and planting; in small gardens by hoeing once a month for a few feet on each side of the tree.

To prevent trees being *gnawed by mice*, tread the snow repeatedly round them. This is an effectual remedy, and should not be neglected, as the labour is small in comparison with the loss of fine trees.

†We have seen a dish of them pickled the first day of winter.

Insects upon the trunk, may be destroyed by whitewashing, or by washing with soft soap or weak lye.

Before closing our remarks for the present, we wish again to urge the importance of proper transplanting and culture. Many suppose that a period of 15 or 20 years must elapse before an orchard is in good bearing state. This is in consequence of the general practice of digging small holes and neglected after culture. Proper management would bring fruit trees in good bearing condition in five or six years at furthest. Indeed so much depends on previously preparing a broad deep bed of loose soil, that for obtaining a *speedy* growth of ornamental trees on a plantation, Loudon, whose authority is first among the first, prefers a proper preparation of ground and planting young trees, to Sir Henry Stewart's celebrated method of setting out at once, *large* trees for this purpose.

The best methods and essential requisites, for successfully budding and grafting, pruning, and the remedies for the diseases and injuries of insects, will be treated of hereafter. J. J. T.

AGRICULTURE AND USEFUL ARTS. (Concluded.)

Circular to a portion of the Consuls of the United States.

TREASURY DEPARTMENT,
September 6, 1827.

SIR: The President is desirous of causing to be introduced into the United States all such trees and plants from other countries, not heretofore known in the United States, as may give promise, under proper cultivation, of flourishing and becoming useful, as well as superior varieties of such as are already cultivated here. To this end, I have his directions to address myself to you, invoking your aid to give effect to the plan that he has in view. Forest trees useful for timber; grain of any description; fruit trees; vegetables for the tables; esculent roots; and, in short, plants of whatever nature, whether useful as food for man or the domestic animals, or for purposes connected with manufactures or any of the useful arts, fall within the scope of the plan proposed. A specification of some of them to be had in the country where you reside, and believed to fall under one or other of the above heads, is given at the foot of this letter, as samples merely, it not being intended to exclude others of which you may yourself have knowledge, or be able, on inquiry, to obtain knowledge. With any that you may have it in your power to send, it will be desirable to send such notices of their cultivation and natural history as may be attainable in the country to which they are indigenous; and the following questions are amongst those that will indicate the particulars concerning which information may be sought:

1. The latitude and soil in which the plant most flourishes.
2. What are the seasons of its bloom and maturity, and what the term of its duration?
3. In what manner it is propagated, by roots, seeds, buds, grafts, layers, or how, and how cultivated; and are there any unusual circumstances attending its cultivation?
4. Is it affected by frost, in countries where frost prevails?

5. The native or popular name of the plant, and (where known) its botanical name and character?

6. The elevation of the place of its growth above the level of the sea?

7. Is there in the agricultural literature of the country any special treatise or dissertation upon its culture? If so, let it be stated.

8. Is there any insect particularly habituated to it?

9. Lastly, its use, whether for food, medicine, or the arts?

In removing seeds or plants from remote places across the ocean, or otherwise, great care is often necessary to be observed in the manner of putting them up and conveying them. To aid your efforts in this respect upon the present occasion, a paper of directions has been prepared, and is herewith transmitted.

The President will hope for your attention to the objects of this communication as far as circumstances will allow; and it is not doubted but that your own public feelings will impart to your endeavors under it a zeal proportioned to the beneficial results to which the communication looks.—It is proper to add that no expense can, at present, be authorized in relation to it. It is possible, however, that Congress may not be indisposed to provide a small fund for it. The seeds, plants, cuttings, or whatever other germinating substance you may transmit, must be addressed to the Treasury Department, and sent to the collector of the port to which the vessel conveying them is destined, or where she may arrive, accompanied by a letter of advice to the Department. The Secretary of the Navy has instructed the commanders of such of the public vessels of the United States as may ever touch at your port, to lend you their assistance towards giving effect to the objects of this communication, as you will perceive by the copy of his letter of instructions, which is herewith enclosed for your information. It is believed, also, that the masters of the merchant vessels of the United States will generally be willing; such is their well known public spirit; to lend their gratuitous co-operation towards effecting the objects proposed. I remain, respectfully, your most obedient servant,
RICHARD RUSH.

Directions for putting up and transmitting seeds and plants, accompanying the letter of the Secretary of the Treasury of September 6, 1827.

With a view to the transmission of seeds from distant countries, the first object of care is to obtain seeds that are fully ripe, and in a sound and healthy state. To this the strictest attention should be paid; otherwise, all the care and trouble that may be bestowed on them will have been wasted on objects utterly useless.

Those seeds that are not dry when gathered, should be rendered so by exposure to the air, in the shade.

When dry, the seeds should be put into paper bags. Common brown paper has been found to answer well for making such bags. But, as the mode of manufacturing that paper varies in different countries, the precaution should be used of putting a portion of the seeds in other kinds of paper. Those that most effectually exclude air and moisture are believed to be the best for that purpose. It would be proper, also, to enclose some of the seeds in paper or cloth that has been

steeped in melted beeswax. It has been recommended that seeds collected in a moist country, or season, be packed in charcoal.

After being put up according to any of these modes, the seeds should be enclosed in a box, which should be covered with pitch, to prevent them from damp, insects, and mice. During the voyage, they should be kept in a cool, airy, and dry situation; not in the hold of the ship.

The oily seeds soonest lose their germinating faculty. They should be put in a box with sandy earth, in the following manner: first, about two inches of earth at the bottom; into this the seeds should be placed at distances proportionate to their size; on these another layer of earth about an inch thick; and then another layer of seeds, and so on, with alternate layers of earth and seeds until the box is filled within about a foot of the top, which space should be filled with sand; taking care that the earth and sand be well put in, that the seeds may not get out of place. The box should then be covered with a close net-work of cord well pitched, or with split hoops or laths well pitched, so as to admit the air without exposing the contents of the box to be disturbed by mice or accident. The seeds thus put up will germinate during their passage, and will be in a state to be planted immediately on their arrival.

Although some seeds with a hard shell, such as nuts, peaches, plums, &c. do not come up until a long time after they are sown, it would be proper, when the kernel is oily, to follow the method just pointed out, that they may not turn rancid on the passage. This precaution is also useful for the family of laurels, (*laurineæ*), and that of myrtles, (*myrti*), especially when they have to cross the equatorial seas.

To guard against the casualties to which seeds in a germinating state may be exposed during a long voyage, and as another means of ensuring the success of seeds of the kinds here recommended to be put into boxes with earth, it would be well, also, to enclose some of them (each seed separately) in a coat of bees-wax, and afterwards pack them in a box covered with pitch.

In many cases, it will be necessary to transmit roots. Where roots are to be transmitted, fibrous roots should be dealt with in the manner herein recommended for young plants. Bulbous and tuberous roots should be put into boxes in the same manner as has already been recommended for oleaginous seeds; except that, instead of earth, dry sand, as free as possible from earthy particles, should be used. Some of the bulbous and tuberous roots, instead of being packed in sand, may be wrapped in paper, and put in boxes covered with net-work or laths. Roots should not be put in the same box with seeds.

Where the seeds of plants cannot be successfully transmitted, they may be sown in boxes, and sent in a vegetating state. Where more than one kind is sown in the same box, they should be kept distinct by laths, fastened in it crosswise on a level with the surface of the ground in which they are sown; and, when different soils are required, it will be necessary to make separate compartments in the box. In either case, they should be properly marked, and referred to in the descriptive notes which accompany them.

When plants cannot be propagated from seeds with a certainty of their possessing the same

qualities which long culture or other causes may have given them, they may be sent in a growing state. For this purpose, they should be taken up when young. Those, however, who are acquainted with their cultivation in the countries where they grow, will know at what age they may be safely and advantageously removed. They may be transplanted direct into the boxes in which they are to be conveyed; or, where that cannot be conveniently done, they may be taken up with a ball of earth about the roots, and the roots of each surrounded with wet moss, carefully tied about it to keep the earth moist. They may afterwards be put into a box, and each plant secured by laths fastened crosswise above the roots, and the interstices between the roots filled with wet moss.—The same methods may be observed with young grafted or budded fruit trees.

Where the time will permit, it is desirable that the roots of the plants be well established in the boxes in which they are transplanted. Herbaceous plants require only a short time for this; but, for plants of a woody texture, two or three months is sometimes necessary.

Boxes for the conveyance of plants, or of seeds that are sown, may be made about two feet broad, two feet deep, and four feet long, with small holes in the bottom, covered with a shell or piece of tile, or other similar substance, for letting off any superfluous water. There should be a layer of wet moss of two or three inches deep at the bottom, or, if that cannot be had, some very rotten wood or decayed leaves, and upon that about twelve inches depth of fresh loamy earth, into which the plants that are to be transplanted should be set. The surface of the earth should be covered with a thin layer of moss, cut small, which should be occasionally washed in fresh water during the voyage, both to keep the surface moist, and to wash off mouldiness, or any saline particles that may be on it.

When the boxes are about to be put on board the ship, hoops of wood should be fastened to the sides in such a manner that, arching over the box, they may cover the highest of the plants; and over these should be stretched a net-work of pitched cord, so as to protect the plants from external injury, and prevent the earth from being disturbed by mice or other vermin.

To each box should be fastened a canvas cover, made to go entirely over it, but so constructed as to be easily put on or off, as may be necessary, to protect the plants from the salt water, or winds, and sometimes from the sunshine. Strong handles should be fixed to the boxes, that they may be conveniently moved.

During the voyage, the plants should be kept in a light airy situation, without which they will perish. They should not be exposed to severe winds, nor to cold, nor, for a long time, to too hot a sunshine, nor to the spray of the salt water.—To prevent injury from the saline particles with which the air is oftentimes charged at sea, (especially when the waves have white frothy curls upon them,) and which, on evaporation, close up the pores of the plants and destroy them, it will be proper, when they have been exposed to them, to wash off the salt particles by sprinkling the leaves with fresh water.

The plants and seeds that are sown will occasionally require watering on the voyage, for which

purpose rain water is best. If, in any special case, particular instructions on this point, or upon any other connected with the management of the plants during the voyage, be necessary, they should be made known to those having charge of the plants. But, after all, much will depend upon the judicious care of those to whom the plants may be confided during the voyage.

Plants of the succulent kind, and particularly of the cactus family, should not be planted in earth, but in mixture of dry sand, old lime rubbish, and vegetable mould, in about equal parts, and should not be watered.

It may not be necessary, in every case, to observe all the precautions here recommended in regard to the putting up and transmission of seeds; but it is believed that there will be risk in departing from them, in proportion to the distance of the country from which the seeds are to be brought, and to the difference of its latitude, or of the latitudes through which they will pass on the voyage. It is not intended, however, by these instructions, to exclude the adoption of any other modes of putting up and transmitting seeds and plants, which are in use in any particular place, and which have been found successful, especially if more simple. And it is recommended, that not only the aid of competent persons be accepted in procuring and putting up the seeds and plants, but that they be invited to offer any suggestions in regard to the treatment of the plants during the voyage, and their cultivation and use afterwards.

SCIENCE OF AGRICULTURE.

The great bar to agricultural improvement, is the degrading idea, which too many entertain, that every thing denominated science, is either useless in husbandry, or beyond the reach of the farmer; whereas the truth is, much, very much that is useful is attainable by those advanced in life, and almost any thing by the young, who will adopt the proper means to obtain it. What is science?—Johnson defines it: "Knowledge; certainty grounded on demonstration; art attained by precept, or built on principles." The adventurous mariner will tell you, that it is science which enables him to traverse every clime, and every sea, with facility and comparative security. Science has contributed essentially to improve every art and branch of industry which administers to the wants of man. It makes us acquainted with the nature of vegetables, of animals, minerals, mixed bodies;—of the atmosphere, of water, of heat and light, as connected with agriculture; of agricultural implements and other mechanical agents, and of agricultural operations and processes. Established practices may be imitated by the merest dolt; but unless he is instructed in the reasons upon which these practices are founded, he can seldom change or improve them.

Intellect is the gift of the Creator; talent is the fruit of culture. The certain way of obtaining knowledge in science, is to be impressed with the necessity of possessing it, in order to prosecute one's business to better advantage. "All may not acquire by the same degree of labor or study, the same degree of eminence; but any man by labor may attain a knowledge of most all that is already known in his particular business." Great men spring from no particular class; they rise from the humble as well as from the higher ranks of life.

Franklin was a printer, Washington a farmer,—Sherman a shoemaker, the elder Adams a school-master, Rittenhouse a ploughman, Ferguson a shepherd, Herschel, a musician—and these all shone conspicuous as philosophers or statesmen. All young men who wish to become respectable, or to excel in agriculture, should be impressed with the necessity of obtaining knowledge in the science of agriculture, i. e. of knowing *how* things are *best* done, and *why*, being so done, they are the best done;—should resolve to obtain this knowledge;—and these two things being premised, there is little doubt of success, at least to a respectable and highly gratifying extent: For "knowledge, like wealth and power, begets the love of itself, and rapidly increases the thirst of accumulation." Science is not the Calypso, but the Mentor of agriculture—the stimulant to produce and industry, rather than a lure to indolence and sloth.

ELEGANT PLOUGH AND CULTIVATORS.

If we may be pardoned for calling a plough elegant, we would state, that we yesterday examined a lot, manufactured by Ruggles, Gourse & Mason, Worcester, Mass., which exhibited a little the most skill, neatness and elegance, of any thing that we have ever seen. We thought that there were made pretty good ploughs in Maine, and indeed there have been some excellent models exhibited at our Cattle Shows, but we are constrained to say that for finish and proportion, the above collection go beyond them. Our plough manufacturers must rouse up or lose the field.

There were some Cultivators among them, which cannot fail to give satisfaction to the farmer. The Cultivator is coming rapidly into use among us, and every farmer who once obtains one will not be willing to be without it again. They are admirable for pulverizing the ground, and covering the seed when sowing; and as these were made so as to expand or contract, they can be successfully used between the rows of such crops as need hoeing.

There were also some side-hill ploughs in the same lot. This kind of plough has but recently been constructed among us. It is so constructed that the mould board can be shifted from one side to the other in a few seconds of time, so that you can plough either way.

Its name seems to denote that its use must be confined to ploughing hill sides, but it can be used upon level ground as well as the common plough.

These implements can be had of Mr. R. G. Lincoln, of this town; and those in want will undoubtedly be well satisfied with their bargain should they buy of him. They will also soon be found for sale in most of the principal towns in the State.—*Maine Farmer.*

VALUE OF RUTA BAGA.

Our neighbor Bement has kept twenty of his Berkshire hogs, mostly full grown breeders, from the first of November to the 15th of February, upon ruta бага and buckwheat bran, at the rate of six bushels of roots and one of bran per diem, fed them two raw meals a day, and one warm meal, boiled. When he began to feed with the roots, the hogs were low in flesh; at the termination of the three and a half months, they were too thrifty for breeding, and some of them fit for the butcher.

He estimates that four quarts of corn to each hog per day, for the time they have been fed with the roots, would not have brought them into a better condition than they now are. What then has been to him the value of his ruta бага?

Four quarts of corn per day to each hog, would have amounted, in the 105 days, to 262 bushels, which, at 75 cents per bushel would be, \$196 50
Add 105 bush. buckwheat bran, at 15 cts. 17 50

And it shows that the ruta бага worth the balance, to wit, \$179 00
Which, divided by 630, the number of bushels fed out, gives the value of a bushel, used in this way, at about 28½ cents. Deduct for the cost of raising, the quantity being about the average product of an acre, four cents the bushel, and it shows a nett profit of 24½ cents per bushel, or of \$154 25 per acre. We call this a demonstration of the profits of root culture.—*Cultivator*.

STAGGERS IN SWINE.

Our attention has been drawn to this subject by the loss of several pigs in our neighborhood, and one of our own, by a disease denominated *the staggers*. We find in the second volume of the Memoirs of the Philadelphia Society for Promoting Agriculture, a communication from J. P. De Gruchy, of much interest. Mr. G. kept from 100 to 250 hogs, and lost annually several—six, eight and a dozen being taken in a few hours. They were generally attacked in the month of September. The hog would all at once turn round very rapidly, and if assistance was not at hand, would in less than half an hour die. At length one of his workmen put into his hands an old pamphlet printed in the year 1707, in which he found the following prescription for what he considered the staggers: "You will see a bare knob in the roof of the mouth, cut it and let it bleed, take the powder of loam and salt, rub it with it, and then give him a little urine, and he will mend." Mr. De Gruchy employed the remedy for several years, with almost unvarying success; but although his hogs generally recovered, they never throve so well afterwards. The disorder is generally confined to pigs and hogs of middling size.

Mr. De Gruchy mentions another disease which attacked his best hogs (in pen) in August, and which carried off thirteen in a few days. He denominates it the *sore throat*. The hog would often be dead in ten minutes after he was attacked. He bled the fourteenth that was attacked, and had him carried and laid in a clover field, and he recovered. The remainder of the hogs were then turned into the clover field, and the disease disappeared. This was done annually afterwards, and the hogs had neither staggers nor sore throat. It is now a well established opinion, that hogs should have access to pasture, in summer, or at least to the earth, to preserve their health.—*Cultivator*.

From the Northampton Courier.

MULBERRY TREES SCARCE IN FRANCE.

By recent intelligence from France, under date of Feb. 3, 1838, it appears that Chinese *Morus Multicaulis* trees are so scarce in France, that an order for only 10,000 could not be answered, for want of trees to fill the order.

How different the case in America! where *hundreds of thousands* are advertised for sale. Yet this destitution of France might have been anticipated from the fact that she could not supply the orders last year. That no nursery can now furnish 10,000 may appear astonishing to Americans, when by industry and perseverance they have themselves multiplied their own trees to such a degree that they not only can furnish all that may be wanted for home supply, but are now enabled to return the favors of France, and supply them with mulberry trees to their hearts' content, from henceforth and forevermore, and can assure them, that there exists no fear but that every order would always be promptly met, and enough left to supply our demands at home,—and hope, in a few years, in addition to the supply of all the trees that can be wanted for exportation, to be able also to supply both England and France with the raw material and a better article than they have ever imported from the Indies or China.

SILK WORM.

From the Northampton Courier.

MULBERRY FACTS.

Extract of a letter from a gentleman of great experience in the culture of the mulberry, under date of March 11, 1833, in reply to a variety of questions in relation to the subject of Silk Culture, &c :

"That with proper culture and attention the *Multicaulis* will endure our winters, is a fact fully established by my own experience. I have a large number which are now in a perfectly hardy state; many of them have stood through three winters unprotected, and are at present in all appearance, uninjured.

"I have cultivated four distinct kinds, and with equal damage by winter and early frosts,—and have come to the conclusion that if the *Multicaulis* is cultivated with the same care and attention as are the peach and apple, we shall have a plant for the business of silk growing that has no superior.

"I obtained last year at the rate of 100 pounds of silk to the acre of *Multicaulis* trees. The present year, having better and more extensive accommodations, my operations will be on a larger scale. *Five tons* of green leaves can be raised by layer trees (to the acre) in this part of New England,—and upon a large scale, 100 pounds of leaves, if judiciously used, will feed 3000 worms, enough for one pound of silk. I have reeled a pound of silk from less than 200 cocoons, and one of my neighbors has done the same.

"The most sure way to protect the roots of the *Multicaulis* and have them survive our coldest winters, is in my opinion as follows: After taking off the leaves, (say from about the 10th to the 20th of September, and before a hard frost) and while the plants are green and growing, cut them down near the ground, and slightly cover the stumps, to keep them from the air.

"If this plan is followed, success is sure. So far as I have had experience, it is the first frosts in autumn which does the injury.

"My mode of planting out the trees is as follows: The land being well ploughed and harrowed, I strike out furrows four feet apart, put therein a dressing of compost manure, and lay down my

trees the whole length, one after the other, and cover with earth. One man can plant an acre in a day and have the work done well. The same amount of labor will be sufficient to cut and clear the ground in the autumn, and another day's work will cover all the stumps. To uncover the stumps in the spring, use the pronged hoe, then let the cultivator pass between the rows, keep the ground clear of weeds and grass until the sprouts are about one foot in height.

"Silk-worms' eggs should be enclosed in glass bottles, corked so close as to exclude the air—deposited in the ice-house and on the ice, and may be brought forth for hatching any time during the season of feeding.

"I hope to see you soon, and then we will give the subject a thorough discussion. W. C."

REMARKS:

We esteem it a privilege to receive communications from the experienced silk grower, and especially from those in whose opinions and practice and observations we have confidence. There are only few who have had the opportunities and experience of our correspondent, and whose opinions so well agree with the friends of silk culture in this vicinity.

Although we are pleased that legislators throughout the Union manifest so much interest in the silk cause, as to encourage it by legislative aid, we hope there will be no reaction. Yet we have our fears, for the want of experienced leaders thoroughly instructed in the process, and whose courage shall not be paralysed by any trifling error of practice or management in the outset—nor by the doubts, the fears, and backwardness of those who will do nothing which their fathers have not done before them, nor encourage others to break away from the chains of prejudice and bigotry, until they see that some have succeeded,—and then, to save themselves from merited reproach, come about with the wind and declare, that *they always thought the business would succeed*.

But fears of another kind exist, viz: that there are not so many mulberries under cultivation by *hundreds of millions* as ought now to be growing in every State in the Union, to enable silk growers to avail themselves of the bounty offered or to be offered, and ensure to themselves the profits of one of the most encouraging pursuits ever offered to an agricultural community, or which offers so ample return for the amount of investment,—and besides, being a business which will not interfere with the ordinary routine of farmers' work or crops.

INSPECTOR.

WORTH TRYING.

An experienced writer says that one bushel of flaxseed ground with eight bushels of oats, is better for horses than sixteen bushels of oats alone, and will effectually cure the bots. If this really be the case, the mixture would be much cheaper food for horses than oats by themselves, for one bushel of flax-seed, would not generally cost more than four bushels of oats, a saving of four bushels in every sixteenth. It is worth a trial.

SPRING WHEAT.—The Caledonian states that Mr. Horace Burroughs, of Kirby, Vt., raised forty bushels of Spring Wheat on three-fourths of an acre of land.

A COUNTRY LIFE.

[From the opera of "The Village Coquettes," by Boz (Chas. Dickens, Esq.)]

There's a charm in spring when ev'ry thing
Is bursting from the ground—
When pleasant showers bring forth the flow'rs,
And all is life around.

In summer day the fragrant hay
Most sweetly scents the breeze,
And all is still, save murmur'ing rill
Or sound of humming bees.

Old Autumn come, with rusty gun
In quest of birds we roam;
Unerring aim, save murmur'ing rill
And proudly bear it home.

A winter's night has its delight,
Well armed to bed we go;
A winter's day we're blithe and gay,
Snipe-shooting in the snow.

A country life, without the strife
And noise and din of town.
Is all I need; I take no heed
Of splendour or renown.

And when I die, oh, let me live
Where trees above me wave;
Let wild plants bloom around my tomb,
My quiet country grave.

Bill to promote the culture of Silk.—William R. Gorgas, Esq. the chairman of the committee on Agriculture, has favored us with a copy of the bill to encourage the culture of Silk, as passed by the Legislature of Pennsylvania on the 31st ult.—it will be found under the head of Silk Intelligence in this day's paper.

Mr. Gorgas deserves the thanks of the whole population of Pennsylvania, for his assiduity and attention to their interests, in pressing this bill through the House of Representatives, as it will no doubt add greatly to the wealth, the comfort and industry of thousands of our citizens, who will now be induced by the advantages held forth, to prosecute this business with energy—which is only required to make it a prosperous and profitable commodity of the commonwealth.—*Phil. Sat. Evg. Post.*

GREEN VEGETABLE MANURE.

The value of green vegetable manure was strikingly proved by me in the spring of 1813. I had a trench opened of sufficient length to receive six sets of potatoes; under three of these sets I placed green cabbage leaves, but the other three had nothing but the soil. When the crop was dug up, the plants over the cabbage leaves yielded about double the produce of the others.—*J. D. Parks, Darford Nursery.*

Good Yield.—A farmer in Hadley last year raised upon two acres of Meadow land, fifty-seven and a half bushels of sound Wheat. When re-measured this spring, it was less in amount from waste and shrinkage, but what he had was sold for seed at \$2.50 per bushel, and produced him the handsome sum of *one hundred and twenty-five dollars!* With the bounty of five cents per bushel, have not our Farmers strong inducements to raise *Wheat?*

Spring Wheat.—Farmers in Virginia, Maryland and Pennsylvania are giving increased attention to the cultivation of the Italian Spring Wheat.

The numerous experiments made with it last year concur in establishing the fact of its great value and importance to wheat growers.

DOMESTIC SILK.

We have been showed some specimens of Sewing Silk, manufactured and colored in the family of Mr. Hiram Robbins, of Penfield, in this country. It was reeled and spun on the common household reel and wheel, and is considered decidedly superior, in some respects, to the imported article. This was their first attempt, and Mr. R. is of opinion, from this experiment, that it will prove a profitable business.—*Pa. pap.*

TO THE PUBLIC.

Try the New Agricultural Establishment in Grant-street, next door to Dinsmore and Kyle.

Every article warranted to be first rate. The subscribers, grateful for past favors, take this early opportunity of returning their thanks to their customers and the public in general, and beg leave to inform them that they are now provided with a very extensive stock of newly manufactured AGRICULTURAL IMPLEMENTS, suitable to meet the call of Farmers, Gardeners, Merchants, Captains of vessels, and others, viz: 1000 Ploughs, assorted sizes, from \$4 to \$15 each, comprising of the old common Bar Shear, Winand's Self Sharpener; Woods & Freeborn's patent, all sizes, "Davis," "Sinclair & Moore's" improved Hill Side Ploughs, highly esteemed for turning the furrow down hill, with wrought or cast shears; Wheat Fans, of various sizes and patterns, from \$15 to \$50 each, warranted to separate the garlic from the wheat; Corn Shellers, from \$12 to \$20; Cutting Boxes, from \$7 to \$50 each; Corn and Tobacco Cultivators, large and small; Expanding do., Wheat Cradles, warranted to have fingers of the natural growth, and Grass Scythes, &c. &c.; Castings, of all descriptions and patterns, by the lb. or ton, to suit customers, allowing a liberal discount to merchants buying to sell again—all of which will be furnished on the most pleasing terms and every article warranted to be of the best quality, in proportion to the cost price. All orders by mail or otherwise shall be duly attended to with the greatest despatch.

♣ We would particularly call the attention of *Country Merchants* and others, wishing to purchase agricultural implements to sell again, to the fact, that we will furnish them with articles on better terms than they can be supplied at any other establishment in the city. Our assortment is complete and as varied as that of the most extensive concern in Baltimore.

We have also connected in its operations with the above branch of business a complete assortment of FIELD AND GARDEN SEEDS, kept by Thomas Denny—Also Garden and Farm Tools, of various sorts and of the choicest collection, which will enable our customers to have filled *entire* all orders in the Agricultural and Seed Departments. mh 26 JOHN T. DURDING & Co.

SUPERB DOUBLE DAHLIAS.

ALSO, GARDEN AND FLOWER SEEDS.

The subscriber offers for sale at his establishment the best collection of Double DAHLIAS offered to the public, and will warrant every root true to name and colour, but they are too well known to need any comment in their favor, as most all amateurs in the vicinity have seen them in bloom to their great satisfaction, so those who wish to have roots that are genuine, apply at the right place, and lower than any other in the city as to quality.

Besides he offers a general and good collection of *Garden and Flower SEEDS*, fresh imported, that cannot be raised to perfection in this country; he has selected from Europe, and will dispose of them on reasonable terms, with a general collection of Greenhouse, Herbaceous and hardy plants, also Bulbous Roots. Catalogues can be had at his establishment, corner of Pine and Lexington street, Baltimore, by

JOHN FEAST,
Florist & Seedsman.

ap 24 3t

ROBERT SINCLAIR, Jr. & CO.

Light street, near Pratt street Wharf,

OFFER FOR SALE, an extensive assortment of AGRICULTURAL and HORTICULTURAL IMPLEMENTS and SEEDS, comprising all that are required to stock the most extensive plantation. Particular attention is directed towards the manufacturing department, where the most competent workmen are employed and durable materials used.

The assortment of PLOUGHS is large and various, among which are the Double mould board, Sub-soil, Self sharpening, Improved Davis, &c.

WHEAT FANS—Com. Dutch, Crank Shake, and Watkins' Patent.

CORN SHELLERS—For manual and horse power, warranted to shell 2 a 700 bushels of corn per day.

CORN AND COB CRUSHERS—For breaking the cob in suitable size for feeding stock.

CYLINDRICAL STRAW CUTTERS—of these there are several sizes. The late improvements made have rendered them the most perfect and effective Straw Cutters in the country.

THRASHING MACHINES and Horse Powers.

CULTIVATORS, for cultivating Corn, Tobacco, &c.

DRILL AND SOWING MACHINES, for drilling vegetable and grass Seeds.

VEGETABLE CUTTERS, for slicing turnips, mangel wurtzel, pumpkins, &c.

HARROWS—Expanding, Com. Square and Diamond shape.

GREEN'S PATENT and common DUTCH STRAW CUTTERS.

ALSO,

Grain Cradles and Grass Sneaths, with warranted Scythes attached, Sickles, Scythe Stones, Grain and Hay Rakes, Hay and Manure Forks, with 2 a 6 prongs, Ox Yokes, Grubbing Hoes, Docking Irons, Ames' Spades and Shovels, cast steel Axes, Bramble Hooks, Hay Knives, Box, Pruning and Sheep Shears, Grass Hooks, Pruning Knives, Children's Spades, and various other Garden Tools.

♣ Merchants wishing to purchase Ploughs and Castings to sell again, will find it to their interest to examine our stock, being the largest and most general assortment in this city, and for sale on liberal terms.

GARDEN & FIELD SEEDS—Just received from Europe, and from the Clairmont Seed Gardens near this city, an extensive assortment of Garden and European Field Seeds, warranted fresh and genuine, viz.

French Sugar Beet Seed, Mangle Wortzel, Ruta Baga, superior Beet and Radish Seeds, early and late Cabbage Seed, 30 kinds early and late Peas, bunch and pole Beans, Hybrid and other Turnip Seeds, Cauliflower and Broccoli; Scotch Kale, Parsnip, Carrot, Cucumber, Lettuce, Onion, Summer and winter Squash, Melons, Leek, Celery, Ockra, Salsafy Cress, superior assortment of Flower Seeds, Herb Seeds, etc. etc.

FIELD SEEDS—English and Italian Ray Grass, Trefoil, Burnet, St. Foin, Lucerne, white and red Clover, green and blue Grass, early Potatoes, Gama Grass Roots, Baden and Mercer Corn, Italian and Tuscany Wheat, Timothy, Herds and Orchard Grass, Millet, etc.

TREES AND PLANTS supplied at the shortest notice from the Clairmont Nurseries, near this city.

♣ Wanted, prime lots Seed, Grain and Grass Seed.

A NEW-FOUNDLAND SLUT.

For sale, a large size New-Foundland Slut, of large size and very handsome. Her color is black. She is thoroughly broken to the gun, and in pup to a bull dog; price \$20. Enquire of the editor of the Farmer and Gardener, Baltimore, Md. ap 17

CONTENTS OF THIS NUMBER.

The growing crops—hired labor—the corn crop—roasting ears—potatoes—proceedings of the grand and petit juries of Baltimore county for the promotion of agriculture—Easton cattle show and fair—the grain worm—culture of fruit—Report to Congress on Agriculture and the useful arts—science of agriculture—elegant plough and cultivators—value of ruta baga—stagners in swine—mulberry trees scarce in France—Mulberry facts—flaxseed with oats for horses—product of spring wheat—poetry, a country life—Pennsylvania encouragement to the silk culture—green vegetable manure—good yield of wheat—spring wheat in the middle states—domestic silk—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 25	—
CATTLE, on the hoof,.....	100lbs	7 00	8 50
CORN, yellow.....	bushel	75	76
White.....	"	75	76
COTTON, Virginia,.....	pound	16	12
North Carolina,.....	"	—	—
Upland,.....	"	10	12½
Louisiana—Alabama	"	—	—
FEATHERS,.....	pound.	45	50
FLAXSEED,.....	bushel.	1 25	dull.
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 50	10 50
Do. do. baker's.....	"	—	—
SaperHow. st. from stores	"	7 50	—
" wagon price,	"	7 00	—
City Mills, super.....	"	7 75	—
" extra	"	8 00	—
Susquehanna,.....	"	7 50	—
Rye,.....	"	4 75	—
Kiln-dried Meal, in hhds.	hhd.	19 00	—
do. in bbls.	bbl.	4 00	—
GRASS SEEDS, wholes. red Clover,	bushel.	8 00	8 50
Kentucky blue	"	2 50	3 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	—	3 00
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	12 00	15 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 00	7 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	9	—
second,.....	"	7	—
refuse,.....	"	5	—
LIME,.....	bushel.	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	34	—
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	75	1 00
Lady,.....	"	1 00	—
PLASTER PARIS, in the stone, cargo,	ton.	3 50	3 75
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	85	90
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100lbs	3 00	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	10 00	20 00
" yellow and red,...	"	8 00	10 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 65	1 70
Red, best.....	"	1 55	1 60
Maryland inferior	"	1 40	1 50
WHISKEY, 1st pf. in bbls.....	gallon.	33	—
" in hhds.....	"	34	—
" wagon price,.....	"	—	30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 50	—
To Wheeling,.....	"	1 75	—
WOOL, Prime & Saxon Fleeces,...	pound.	40 to 50	20 22
Full Merino,.....	"	35	40 18 20
Three fourths Merino,.....	"	30 35	19 20
One half do.....	"	25 30	18 20
Common & one fourth Meri.	"	25 30	18 20
Pulled,.....	"	28 30	18 20

MORUS MULTICAULIS TREES.

The subscriber has from 25,000, to 30,000 Morus Multicaulis trees now growing at his residence, with roots of 1, 2, and 3 years old, which will be ready for sale this all, and which he will sell on moderate terms.

EDWARD P. ROBERTS.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	13	13½
Shoulders,.... do.....	"	11	—
Middlings,.... do.....	"	11	—
Assorted, country,.....	"	10	—
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"	—	—
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old...	each.	5 00	6 00
Cows, new milch,.....	"	30 00	40 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 68	—
CHOP RYE,.....	"	1 50	1 62
EGGS,.....	dozen.	12½	—
FISH, Shad, No. 1, Susquehanna,	barrel.	6 75	—
No. 2,.....	"	6 50	—
Herrings, salted, No. 1,.....	"	3 00	—
Mackerel, No. 1, ————No. 2	"	8 75	11 00
No. 3,.....	"	5 75	—
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	9	10

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	Farmers Bank of Virgi. 2
Branch at Baltimore,.....do	Bank of Virginia,..... d2
Other Branches,.....do	Branch at Fredericksburg, 1p
	MARYLAND.
Banks in Baltimore,.....par	Petersburg,..... o½
Hagerstown,.....ja	Norfolk,..... 2
Frederick,.....do	Winchester,..... 1
Westminster,.....do	Lynchburg,..... 2½
Farmers' Bank of Mary'd, do	Danville,..... 2
Do. payable at Easton,.....do	Bank of Valley, Winch. 3
Salisbury,..... 1 per ct. dis.	Branch at Romney,...
Cumberland,..... par	Do. Charlestown,
Millington,.....do	Do. Leesburg,.... 1
	DISTRICT.
Washington, }	Wheeling Banks,...
Georgetown, } Banks, ½p.c.	Ohio Banks, generally 6a7
Alexandria, }	New Jersey Banks gen. 5
	PENNSYLVANIA.
Philadelphia,.....par	New York City,.... par
Chambersburg,.....ja	New York State,.... 1a½
Gettysburg,.....do	Massachusetts,.... 3a3½
Pittsburg,..... 2½	Connecticut,.... 3a3½
York,..... ¾	New Hampshire,.... 3a3½
Other Pennsylvania Bks. 2	Maine,..... 3a3½
Delaware [under \$5].... 4	Rhode Island,.... 3a3½
Do. [over 5]..... 1½	North Carolina,.... 5
Michigan Banks,.....10	South Carolina,.... 6a7
Canadian do.....10	Georgia,..... do
	New Orleans,..... 8a10

EXTENSIVE SALE OF IMPORTED STOCK, At the Old North Farm, East Bloomfield, five miles west of Canandaigua, Ontario Co., New York.

NUMEROUS applications having been made to purchase this stock, the proprietor has concluded, that in order to afford a fair opportunity to those who have already made enquires, and others desirous of obtaining the breed to offer the same at

PUBLIC AUCTION,

On Wednesday the 2d of May next, on which day will be sold twenty Improved Durham Short Horns, Bulls, Cows and Heifers of various ages. Amongst the former is the famous Bull "Rover," which was bred by the Earl of Carlisle, got by Rockingham, dam, (Cherry) by Wonderful, gr. dam by Alfred, &c. &c. Rockingham was by Fairfax, dam (Maria) by young Albion; gr dam, (Layd Sarah) by Pilot; gr gr. dam by Agamemnon. Also, Alexander, Orion, Splendor and others. And of and cows and Heifers, Beauty, Primrose, own sister to Reformer, Prize, Lady Bowen, Brilliant, &c. &c.

Three full blooded Mares and one 3 year old Stud colt, of pure racing breed, viz:—Brown Mare Falconet, by Falcon, dam by Catton, (Hindcliff's dam) Hannah by Sorcerer, Amelia, &c.

Bay mare Miss Andrews, sister to Caroline, by Catton, dam by Dick Andrews; her dam by Sir Peter; Play or Pay's dam by Herod, &c.

Chestnut Mare Jessica, by Velocipede, dam by Sancho gr. dam Blacklock, and Theodore's dam.

Bay stud colt, Humphrey Clinker, by Allen's Humphrey Clinker, dam Miss Andrews, &c.

The well known stud horse Turk and Alfred, whose stock for the two seasons they have stood is unsurpassed.

Likewise about 20 Rams and a few Ewes of the improved New Leicester breed of Sheep. These are chiefly from a Ram belonging to the celebrated breeder Sir Tatton Sykes, for which he paid 300 guineas.

The whole of the above stock were selected from the highest order of blood in England by their present owner, who imported it direct to this country, and can be recommended as worthy the notice and confidence of breeders.

Pedigrees may be had on, or previous to the day of sale, and further information obtained on application to

THOMAS WEDDLE.

East Bloomfield, 1st January, 1838.

N. B.—The terms of payment will be liberal to those who wish. feb. 13.

FARMERS' REPOSITORY

OF AGRICULTURAL IMPLEMENTS AND EASTMAN'S CYLINDRICAL STRAW CUTTERS IMPROVED.

THE Subscriber informs the public that he has secured by letters patent his late and very important improvements on his Cylindrical Straw Cutter, by which improvements they are made more durable and easier kept in order. All the machinery being secured to an iron frame the shrinkage, wear and decay of wood is avoided. The feeding part of his improved machine is upon an entire different principle from the former machine; far more durable, requiring neither skill or care to keep it in order. These machines are so constructed as to make the freight on them less than half what it cost to ship the former or wood machines, an important desideratum to purchasers living at a distance; and I now offer it to the public upon the credit of my establishment as the most perfect machine in existence for the same purpose. They are also adapted to cutting rags for paper making, and for cutting tobacco as manufactured by Tobacconists, &c.

I also keep these machines on hand made as heretofore with my new feeding machinery attached to them; and also a general assortment of Agricultural Implements, as usual. Elliott's Horizontal Wheat Fans, and Fox & Bolland's Threshing Machines are both superior articles.

My stock of Ploughs on hand are not equalled in this city either for quality, quantity, or variety. I have a large assortment of Plough Castings at retail or by the ton, and having an Iron Foundry attached to my establishment can furnish any kind of Plough or Machine Castings on reasonable terms and at a short notice.

All repairs done with punctuality and neatness. On hand, a few Patent Lime Spreaders, Horse Powers, &c. &c.

Also just received, a fresh supply of Landreth's superior Garden Seeds. In store, superior Timothy and Orchard Grass Seed and Seed Oats. All implements in the agricultural line will be furnished by the subscriber, as good and on as reasonable terms as can be had in this city, with a liberal deduction to wholesale purchasers. Likewise will receive orders for Fruit Trees from Mr. S. Reeves' Nursery, New Jersey.

JONATHAN S. EASTMAN,

Pratt street, Baltimore,

feb 20

Between Charles & Hanover sts

THE AMERICAN FARMER.

The proprietors of this paper have a few complete sets of this work on hand, which they will dispose of at the reduced price of \$50 a set.—They are half bound and comprise each 15 volumes. The American Farmer, it will be recollected, was the pioneer in agricultural improvement in this country, being established in 1819, by John S. Skinner, Esq., to whose talents and industry its pages are indebted for, perhaps, the most valuable collection of agricultural matter to be found in any work extant. Those who desire to possess themselves of this valuable work will make early application as the number for sale is very limited.

1872

